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A STRUCTURAL WEIGHT ESTIMATION PROGRAM (SWEEP) FOR AIRCRAFT. VOLUME VI - WING AND EMPENNAGE MODULE. BOOK 2: TECHNICAL DISCUSSION, SECTIONS III AND IV

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20. ABSTRACT (Continue on reverse side if necessary and identify by block number)

Three computer programs were written with the objective of predicting the structural weight of aircraft through analytical methods. The first program, the structural weight estimation program (SWEEP), is a completely integrated program including routines for airloads, loads spectra, skin temperatures, material properties, flutter stiffness requirements, fatigue life, structural sizing, and for weight estimation of each of the major

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20. ABSTRACT (CONTINUED)

aircraft structural components. The program produces first-order weight estimates and indicates trends when parameters are varied. Fighters, bombers, and cargo aircraft can be analyzed by the program. The program operates within 100,000 octal units on the Control Data Corporation 6600 computer. Two stand-alone programs operating within 100,000 octal units were also developed to provide optional data sources for SWEEP. These include (1) the flexible airloads program to assess the effects of flexibility on lifting surface airloads, and (2) the flutter optimization program to optimize the stiffness distribution required for lifting surface flutter prevention.

The final report is composed of 11 volumes. This volume (volume VI) contains the methods and program description for the wing and empennage module of SWEEP. Program listings and flow charts are included in the appendix to this volume.

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BOOK 2

TECHNICAL DISCUSSION, SECTIONS III AND IV

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Section III

INPUT DATA PROCESSING AND GEOMETRY ANALYSIS

GENERAL DESCRIPTION

The input data processing and geometry calculation for wing, horizontal tail, or vertical tail surfaces are performed by overlay (8, 0) subroutines. Overlay (8, 0) is the first of eight wing and empennage module overlays to be executed by the SWEEP master control program, ØLAY00. Overlay (8, 0) is identified by program ØLAY8.

Overlay (8, 0) consists of program ØLAY8 and 12 subroutines. The subroutines and pertinent general information for each are presented in Table 19. Figure 56 shows the subroutine structure of overlay (8, 0). The logic and computational flow is shown in Figure 57. Source deck listings and detail flow diagrams for each of the 13 overlay (8, 0) routines can be found in the appendix of this volume.

The input data processing function of overlay (8, 0) is performed first by the subroutine CCNTL. The case input data set for the surface to be analyzed is ordered into blank common array D. Pertinent design information from three other sources, arrays XMISC, WD, and SPAL, are then processed into appropriate D array locations. The transfer of data is governed by predetermined tests by subroutine CCNTL.

The second computational function of overlay (8, 0) is performed by geometry subroutines executed under control of subroutine GEØMW. Geometry information is computed to describe the surface characteristics in three dimensions in terms of actual dimensions. Overlay (8, 0) geometry subroutines create the general analysis control data which are used in the detail analysis performed by the seven other module overlays.

OVERLAY (8, 0) INPUT DATA

Input data for overlay (8, 0) are stored in labeled common blocks MISC and IPRINT and on mass storage file 1. The case variable data inputed through input data decks WING, HØRIZØNTAL, and VERTICAL are stored in records 23, 26, and 27 of mass storage file 1. The surface type to be evaluated by the module is specified by program ØLAY00 by code in location 2, array XMISC. Code value 1.0 denotes wing, 2.0 horizontal tail, and 3.0 vertical tail.

Mass storage file 1 also contains three other blocks of data used by overlay (8, 0). Design information created during execution of the data management and the flutter and temperature modules of SWEEP are stored in

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TABLE 19. EXTERNAL REFERENCES, OVERLAY (8,0) ROUTINES

Name	Type	Called By	External Reference	Inline Function	File Names
ØLAY8	Program	ØLAY00	CCNTL UNIT	-	TAPE24
ABØXC	Subroutine	GEØMW TBWDC	DMAX	-	TAPE6
CAERØ	Subroutine	DMAX GEØMC GEØMW	-	-	-
CASE	Subroutine	CCNTL	GEOMW WRITMS	ABS	-
CCNTL	Subroutine	ØLAY8	CASE READMS	-	TAPE6
DMAX	SUBROUTINE	ABØXC GEØMW TBWDC	CAERØ SQRT	-	TAPE6
GCØMP	Subroutine	PRTG	ATAN SQRT	-	-
GEØMC	Subroutine	GEØMW	CAERØ	-	TAPE6
GEØMW	Subroutine	CASE	ABØXC CAERØ CØS DMAX GEØMC PRTG READMS SIN SØRT TBWDC VSGEØM WRITMS	-	TAPE6
PRTG	Subroutine	GEØMW	GCØMP	-	TAPE6

TABLE 19. EXTERNAL REFERENCES, OVERLAY (8,0) ROUTINES (CONCL)

Name	Type	Called By	External Reference	Inline Function	File Names
SWPXYP	Subroutine	VSGEØM	SQRT	-	-
TBWDC	Subroutine	GEØMW	ABØXC DMAX SQRT	ABS	TAPE6
VSGEØM	Subroutine	GEØMW	ATAN CØS SIN SQRT SWPXYP	ABS	TAPE6

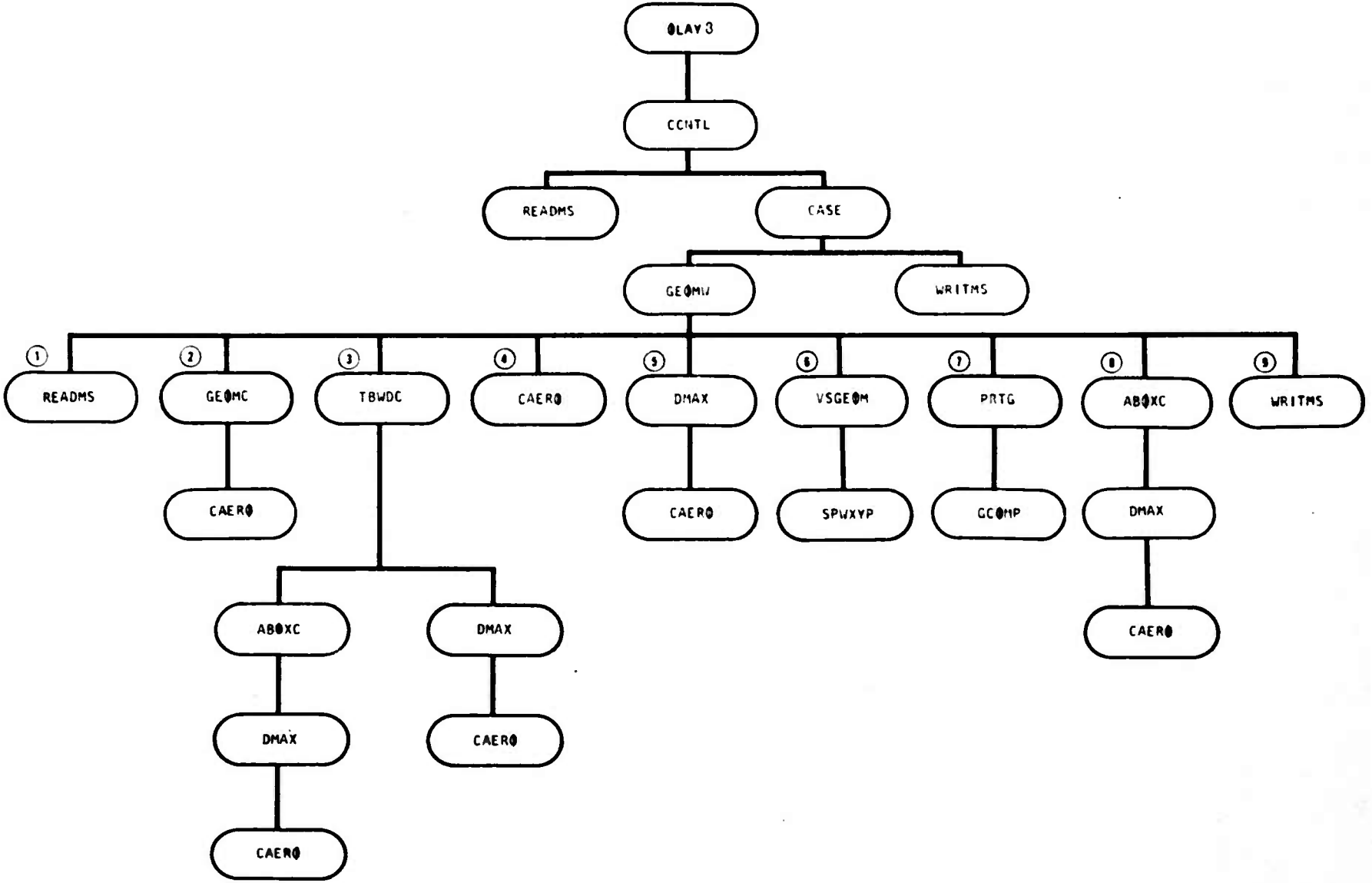

Figure 56. Overlay (8,0) - input data processing and geometry analysis.

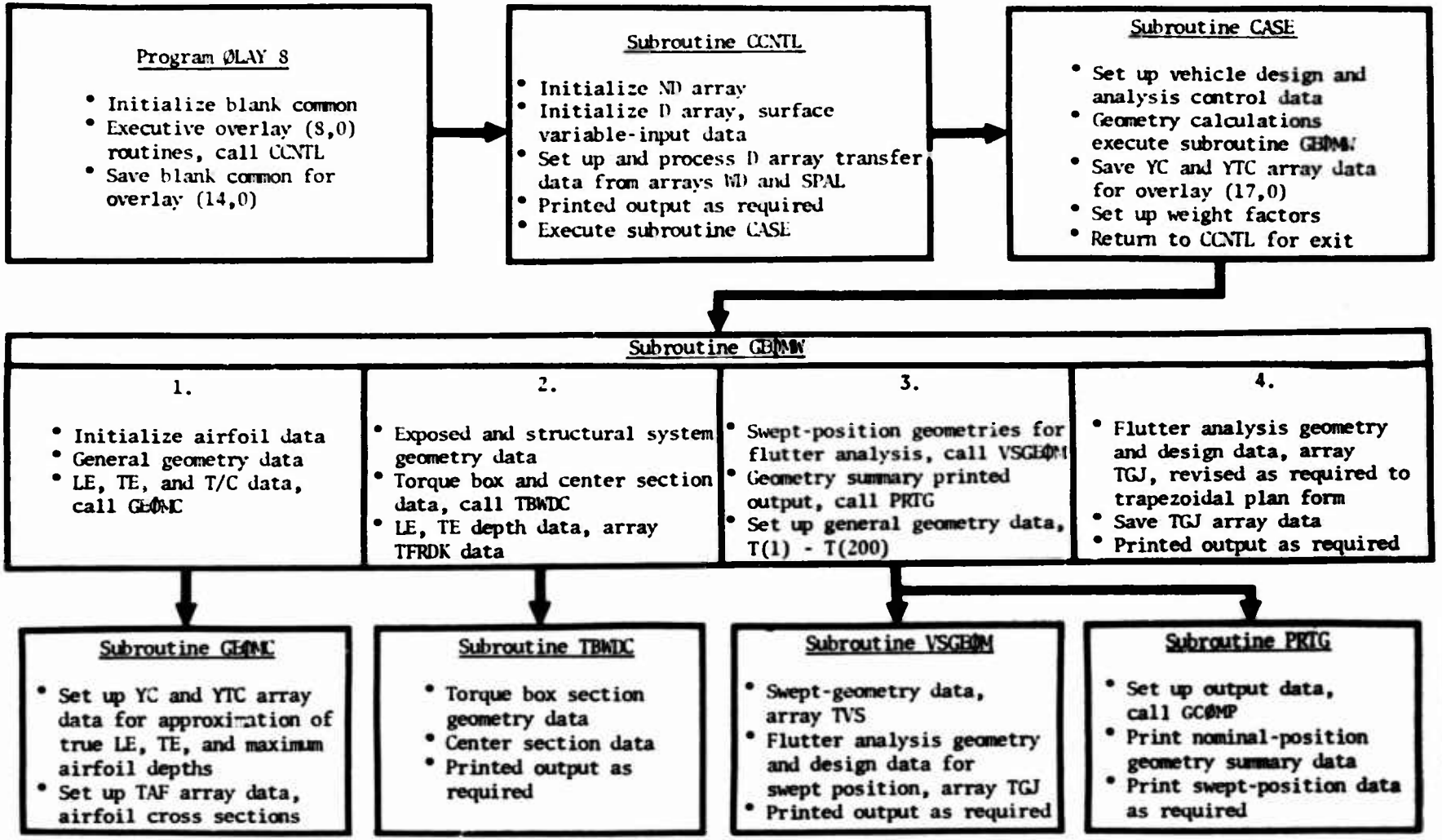

Figure 57. Overlay (8,0) logic flow diagram.

records 21 and 38. These records are ordered into blank common arrays WD and SPAL by subroutine CCNTL for processing into the module variable-data array D.

Design and analysis control information is also transmitted to overlay (8, 0) through array XMISC, labeled common block MISC. Labeled common block IPRINT contains array IP, which contains the code values specified in case control card 1. The information on each column of this card is stored in corresponding IP array locations. IP array data are used by overlay (8, 0) subroutines to determine if computed data are to output as printed data.

OVERLAY (8, 0) OUTPUT DATA

Output from overlay (8, 0) computations is transmitted to the seven other module overlays as blank common data and data blocks on mass storage file 1. Overlay (8, 0) output includes the following:

1. Variable data for the surface to be analyzed, transmitted through blank common, array D.

2. Integer constants contained in array ND, transmitted through blank common.

3. Analysis control codes and case integer constants:

   a. Variable LID, ND(54)

   b. Variable NMATL, ND(59)

   c. Variable NCASE, ND(60)

   d. Variable NCSEC, ND(68)

   e. Variable NPAGE, ND(85)

   f. Variable WHVID, T(57)

4. Computed geometry and design data:

   a. Data in T array locations 1 to 200, transmitted through blank common

   b. Array TXY data, transmitted through blank common

   c. Array TGJ data, transmitted through record 10, mass storage file 1

d. Data in arrays YC and YTC, transmitted through blank common and record 144, mass storage file 1

e. Array TFRDK data, transmitted through blank common

5. Printed output, printed under control of print codes, array IP. Samples of pritned output can be found in Appendix A, Volume IX, User's Manual.

OVERLAY CORE MAPS

Storage and retrieval of computed data by overlay (8,0) subroutines are made on the basis of data name references to core locations in blank common. The major arrays into which blank common is divided (Table 3) are used as the reference blank common blocks to which the primary storage arrays are equivalenced. Tables 20 through 41 contain the pertinent information for the arrays used in this overlay.

The overlay (8,0) storage arrays are as follows. Table numbers refer to core maps found in this section.

- AFD, Table 28
- DAF, Table 25
- DLE, Table 22
- DTC, Table 24
- DTE, Table 23
- SPAL, Table 21
- T, Table 34
- TAF, Table 29
- TD, Table 40
- TFRDK, Table 37
- TGJ, Table 36
- TS, Table 41
- TR, Table 50
- TT (GEØMW), Table 45
- TT (TBWDC, ABØXC), Table 51
- TVS, Table 35
- TXY, Table 30
- WD, Table 20
- YC, Table 38
- YLE, Table 32
- YTB, Table 31
- YTC, Table 39
- YTE, Table 33

Core maps for labeled common arrays XMISC and IP can be found in Tables 5 and 6. Mass storage file 1 records used by overlay (8,0) routines are identified in the subroutine descriptions. Table 7 contains pertinent information for all mass storage file 1 records used.

Variable data for the problem case are initialized into the D array by subroutine CCNTL. All information contained in this array remains as initialized by CCNTL during execution of all overlays of the wing and empennage module. Table 8 contains definitions for all data locations of the D array. References to array D by all routines in the wing and empennage module are defined in Tables 11 and 12.

Definitions for data locations of arrays DC and ND can be found in Tables 9 and 10. Subroutine reference information for these arrays are listed in Tables 13 and 14.

TABLE 20. WD ARRAY, WING AND EMPENNAGE VARIABLE DATA, MASS STORAGE FILE 1, RECORD 21

General information for array WD:
Blank common reference location = T(1)
Array size = 200 cells
Array contains the wing and empennage design data to be processed into the wing and empennage variable data D array by subroutine CONTL. Array data are stored on record 21, mass storage file 1, created by subroutine DCONTL, overlay (2,0).

Array Location	Description
1	Not used
2	Maximum design weight, lb
3	Basic flight design weight, lb
4	Maximum positive maneuver load factor, subsonic, at BFDW
5	Maximum negative maneuver load factor at BFDW
6	Maximum dynamic pressure, lb/ft^2
	Locations 7-110 contain wing design data.
7	$(X/C)_{EA}$, equivalent chord element line, structural reference line
8	$(X/C)\ \Lambda$, reference chord element line, planform sweep angle
9	Wing weight per side, fraction of BFDW
10	Y-coordinate of pivot
11	X distance of pivot from leading edge
12	Λ_{fwd}, movable panel forward sweep position for pivot analysis, degrees
13	Λ_{aft}, movable panel aft sweep position for pivot analysis, degrees
14	Wing apex station, location reference station for wing relative to fuselage, fuselage station
15	S, planform area, sq ft
16	AR, planform aspect ratio
17	Λ, planform sweep, degrees
18	λ, planform taper ratio
19	b_1, body width, distance between shear-tie locations
20	Fuel system weight factor, ratio of fuel system plus trapped fuel to total wing fuel
21	Weight of surface controls in exposed wing panel, lb/side
22	Weight of miscellaneous items in exposed wing panel, lb/side
23	Number of sweep positions for pivot analysis, set to 1.0
24	Code word for Torque-box geometry, same as D(864), set to 2.0

TABLE 20. WD ARRAY, WING AND EMPENNAGE VARIABLE DATA, MASS STORAGE FILE 1, RECORD 21 (CONT)

Array Location	Description
25-35	Analyses control stations, Y_{1-11}, buttock plane values, root to tip
Locations 36-47 contain wing fuel cell data.	
36	Wing fuel tank 1 capacity, lb/side
37	Fuel in wing tank 1 at BFDW, lb/side
38	X-CG fuel, wing tank 1, in.
39	Y-station wing fuel tank 1, inboard rib, buttock plane value
40	Y-station wing fuel tank 1, outboard rib, buttock plane value
41	Wing fuel tank 2 capacity, lb/side
42	Fuel in wing tank 2 at BFDW, lb/side
43	X-CG fuel, wing tank 2, in.
44	Y-station wing fuel tank 2, inboard rib, buttock plane value
45	Y-station wing fuel tank 2, outboard rib, buttock plane value
Locations 46-101 contain data for concentrated mass items on the wing, 7 masses, 8 items per mass. • Location 46-53, inboard nacelle, to be located as wing mass No. 5 • Location 54-61, outboard nacelle, to be located as wing mass No. 6 • Location 62-69, wing mounted landing gear, to be located as wing mass No. 7 • Location 70-77, inboard store, to be located as wing mass No. 1 • Location 78-85, outboard store, to be located as wing mass No. 2 • Location 86-93, inboard pylon, to be located as wing mass No. 3 • Location 94-101, outboard pylon, to be located as wing mass No. 4	
46	Inboard nacelle package weight, lb/side
47	Y-station inboard nacelle package, buttock plane station value
48	X-CG inboard nacelle package, fuselage station value
49	Vertical distance from inboard nacelle package Z-CG to wing reference plane, in.
50	Inertia data code word for inboard nacelle package, set to 1.0
51	Pitch inertia inboard nacelle package, lb-in.^{2}/side
52	Not used (saved for roll inertia)
53	Yaw inertia inboard nacelle package, lb-in.^{2}/side
54	Outboard nacelle package weight, lb/side
55	Y-station outboard nacelle package, buttock plane station value
56	X-CG outboard nacelle package, fuselage station value
57	Vertical distance from outboard nacelle package to wing reference plane, in.

TABLE 20. WD ARRAY, WING AND EMPENNAGE VARIABLE DATA, MASS STORAGE FILE 1, RECORD 21 (CONT)

Array Location	Description
58	Inertia data type code word for outboard nacelle package, set to 1.0
59	Pitch inertia outboard nacelle package, lb-in.^{2}/side
60	Not used (saved for roll inertia)
61	Yaw inertia outboard nacelle package, lb-in.^{2}/side
62	Main landing gear weight, lb/side
63	Y-station main landing gear, buttock plane station value
64	X-CG main landing gear, fuselage station value
65-69	Not used
70	Wing inboard payload weight, lb/side
71	Y-station inboard payload, buttock station value
72	X-CG inboard payload, fuselage station value
73-77	Not used
78	Wing outboard payload weight, lb/side
79	Y-station outboard payload, buttock plane station value
80	X-CG outboard payload, fuselage station value
81-85	Not used
86	Wing inboard pylons weight, lb/side
87	Y-station inboard pylons, buttock station value
88	X-CG inboard pylons, fuselage station value
89-93	Not used
94	Wing outboard pylons weight, lb/side
95	Y-station outboard pylons, buttock plane value
96	X-CG outboard pylons, fuselage station value
97-101	Not used
102	Wing fuel density, lb/in.^{3}
103	Fuel weight at MDW per vehicle, lb
104	Fuel expended from MDW to BFDW, lb
105	Payload and ammunition expended from MDW to BFDW, lb
106	Maximum positive maneuver load factor, limit load value
107-110	Not used
Locations 111-113 contain horizontal tail design data.	
111	$(X/C)_{EA}$, equivalent chord, element line, structural reference line
112	$(X/C)\ \Lambda$, reference chord element line, planform sweep angle
113	Horizontal tail weight per side, fraction of BFDW
114	Horizontal tail apex station, location reference station for horizontal tail relative to fuselage, fuselage station
115	S, planform area, sq ft

TABLE 20. WD ARRAY, WING AND EMPENNAGE VARIABLE DATA, MASS STORAGE FILE 1, RECORD 21 (CONT)

Array Location	Description
116	AR, planform aspect ratio
117	Λ , planform sweep, degrees
118	λ, planform taper ratio
119	b_1, body width, distance between shear tie locations
120	Weight of surface controls in horizontal tail, lb/side
121	Not used (saved for weight of miscellaneous items in horizontal tail)
122	Code word for torque-box geometry, same as D(864), set to 2.0
123-133	Analysis control stations, Y_{1-11}, buttock station values, root to tip
Locations 134-158 contain vertical tail design data.	
134	$(X/C)_{EA}$, equivalent chord element line, structural reference line
135	$(X/C)\Lambda$, reference chord element line, planform sweep angle
136	Vertical tail weight per panel, fraction of BFDW
137	Vertical tail apex station, location reference station for vertical tail relative to fuselage, fuselage station
138	S, planform area for two panels, sq ft
139	AR, planform aspect ratio for two panels
140	Λ , planform sweep, degrees
141	λ, planform taper ratio
142	b_1, body width at fuselage - vertical tail interface, set to 0.0
143	Weight of surface controls in vertical tail, lb/panel
144	Not used (saved for weight of miscellaneous items in vertical tail)
145	Code word for torque-box geometry, same as D(864), set to 2.0
146-156	Analysis control stations, Y_{1-11}, Z-distance from root chord station
157	Code words for vertical tail type: 0.0 = conventional 1.0 = T-tail, tip-mounted horizontal tail configuration
158	Total number of vertical tail panels
Locations 159-170 contain wing and empennage design data.	
159	Wing dihedral angle, degrees
160	Wing reference plane station at centerline, water plane station
161	Wing thickness ratio at root chord
162	Wing thickness ratio taper
163	Horizontal tail dihedral angle, degrees

TABLE 20. WD ARRAY. WING AND EMPENNAGE VARIABLE DATA, MASS STORAGE FILE 1, RECORD 21 (CONCL)

Array Location	Description
164	Horizontal tail reference plane station at centerline, water plane station
165	Horizontal tail thickness ratio at root chord
166	Horizontal tail thickness ratio taper
167	Vertical tail dihedral angle, degrees
168	Vertical tail Z-station at root chord
169	Vertical tail thickness ratio at root chord
170	Vertical tail thickness ratio taper
171-200	Not used

TABLE 21. SPAL ARRAY, WING AND EMPENNAGE FLUTTER ANALYSIS DATA, MASS STORAGE FILE 1, RECORD 38

General information for array SPAL:

Blank common reference location = T(1001)

Array size = 50 cells

Array contains wing and empennage flutter analysis data to be processed into wing and empennage variable data D array by subroutine CCNTL. Array data are stored on record 38, mass storage file 1, created by subroutine DWHVQQ, overlay (2,0); subroutine WHVQQ, overlay (3,0); and subroutine WØDATA, overlay (17,0).

All array locations are referenced as T(xxxx) locations in subroutine CCNTL. T array locations identified by an asterisk (*) are array items used by CCNTL.

Array Location	T Array Location	Description
Locations 1-16 contain design data for T-tail vertical tail flutter requirement analysis. Horizontal tail mass properties values in locations 1-7 may be revised by wing and empennage module with calculated data. Data management module, overlay (2,0), provides initial values from estimated data. These values are replaced with calculated horizontal tail data by subroutine WØDATA, overlay (17,0), at the conclusion of any horizontal tail analysis. This option is executed when a code value of 1.0 is specified in variable data location D(204) for horizontal tail analysis, and included in input data deck HORIZØNTAL.		
1	1001	W_{HT}, weight of exposed horizontal tail structure and contents, initial value lb/side, replaced with total weight per air vehicle
2	1002	Y_{HT}, Y-coordinate of one exposed horizontal tail panel, compatible with weight in location 1, buttock plane station
3	1003	X_{HT}, X-coordinate of exposed horizontal tail and contents weight in location 1, fuselage station
4	1004	Z_{HT}, Z-coordinate, reference location for horizontal tail mass, initially estimated Z_{CG}, changed to Z-coordinate of horizontal tail reference plane at centerline by WØDATA
5	*1005	I_{YYHT}, pitch inertia of total exposed horizontal tail mass at total mass centroid, lb-in.^{2}/air vehicle

TABLE 21. SPAL ARRAY, WING AND EMPENNAGE FLUTTER ANALYSIS DATA, MASS STORAGE FILE 1, RECORD 38 (CONT)

Array Location	T Array Location	Description
6	*1006	I_{XXHT}, roll inertia of total exposed horizontal tail mass at total mass centroid, lb-in.^{2}/air vehicle
7	*1007	I_{ZZHT}, yaw inertia of total horizontal tail mass at mass centroid, lb-in.^{2}/air vehicle
8	1008	M_{TT}, mach number at critical flutter design point for T-tail vertical tail flutter analysis
9	*1009	Q_{TT}, effective dynamic pressure at critical flutter design point for T-tail vertical tail flutter analysis, psf
10	*1010	G_{TT}, at temperature material shear modulus for T-tail vertical tail flutter analysis at critical flutter design point
11	*1011	Composite factor for T-tail vertical tail flutter requirement, product of specified factor K times derived factor C_{TT}. K = input flutter requirement calibration factor C_{TT} = empirical coefficient for T-tail vertical tail flutter requirement equation, f (M, horizontal tail dihedral)
12	*1012	Horizontal tail dihedral, degrees
13	1013	Not used
14	1014	Not used
15	1015	Not used
16	1016	Flutter speed margin
Locations 17-34 contain altitudes and mach numbers defining M_L speed profile with nine points for analysis of fixed wing configurations or wings in aft position for variable sweep designs.		
17	1017	Altitude for point 1 on M_L diagram (fixed or aft), ft
18	1018	Altitude, point 2
19	1019	Altitude, point 3
20	1020	Altitude, point 4
21	1021	Altitude, point 5
22	1022	Altitude, point 6
23	1023	Altitude, point 7
24	1024	Altitude, point 8
25	1025	Altitude, point 9
26	1026	Mach number for point 1 on M_L diagram (fixed or aft), M

TABLE 21. SPAL ARRAY, WING AND EMPENNAGE FLUTTER ANALYSIS DATA, MASS STORAGE FILE 1, RECORD 38 (CONT)

Array Location	T Array Location	Description
27	1027	Mach number, point 2
28	1028	Mach number, point 3
29	1029	Mach number, point 4
30	1030	Mach number, point 5
31	1031	Mach number, point 6
32	1032	Mach number, point 7
33	1033	Mach number, point 8
34	1034	Mach number, point 9
Location 35-40 contain altitudes and mach numbers defining three points on M_L speed profile, wings forward, for analysis of variable sweep configurations.		
35	1035	Altitude for point 1 on M_L diagram (fwd), ft
36	1036	Altitude, point 2
37	1037	Altitude, point 3
38	1038	Mach number for point 1 on M_L diagram (fwd), M
39	1039	Mach number, point 2
40	1040	Mach number, point 3
Locations 41-50 contain design data for wing and empennage flutter requirement analysis.		
41	1041	Altitude at critical flutter design point for wing flutter analysis, variable sweep configurations, forward wing sweep position, ft
42	1042	Mach number at critical flutter design point for wing flutter analysis, variable sweep configurations, forward wing sweep position.
43	*1043	Design temperature at critical flutter design point for wing flutter analysis, variable sweep configurations, forward wing sweep position, °F
44	*1044	Effective dynamic pressure (corrected for compressibility effects) at critical flutter design point for wing flutter analysis, variable sweep configurations, forward wing sweep position, psf

TABLE 21. SPAL ARRAY, WING AND EMPENNAGE FLUTTER ANALYSIS DATA, MASS STORAGE FILE 1, RECORD 38 (CONCL)

Array Location	T Array Location	Description
45	*1045	At temperature material shear modulus for wing flutter analysis at critical flutter design point, variable sweep configurations, forward wing sweep position, psi
46	*1046	Design temperature at critical wing flutter design point, fixed wing configurations or aft wing sweep position for variable sweep configurations, °F
47	*1047	Design temperature at critical horizontal tail flutter design point, °F
48	*1048	Design temperature at critical vertical tail flutter design point. °F
49	*1049	Design temperature at critical T-tail vertical tail flutter design point, °F
50	1050	Not used

VARIABLE DATA SUBARRAYS DLE, DTE, AND DTC

Optimal variable data sets used to define nonlinear planform and cross-section tapers are located in D array locations 1985 through 2052.

- The leading edge data set is assigned sub-array name DLE, locations D(1985) through D(2007), Table 22.

- The trailing edge data set is assigned subarray name DTE, locations D(2008) through D(2030), Table 23.

- Airfoil thickness ratios are specified in D(2031) through D(2052), subarray name DTC, Table 24.

These data sets are processed by subroutine GEØMC to create the required numerical information in arrays YC and YTC. True locations of the leading and trailing edges are defined with 11 control points in terms of either actual Y- and X-coordinates, position relative to the theoretical trapezoidal planform, or combinations of both. The DLE and DTE data sets consist of 23 data items each, 11 spanwise and chordwise points plus a code word to identify the type of input chordwise data. Spanwise control stations can be specified in terms of either actual Y-coordinate values (input value greater than 1.0) or as fractions of the semispan (input values of 1.0 or less). Chordwise locations can be specified in terms of

1. $\pm\Delta X$ from the planform trapezoidal leading or trailing edge element line at the control station (code value = 0.0).

2. Fuselage stations (code value = 1.0).

3. $\pm X/C$, fraction of local chord from the leading or trailing edge element line at the control station (code value = 2.0).

Thickness ratios are specified in similar manner; the DTC array consisting of spanwise control station data and local thickness ratios. Maximum airfoil depths are calculated as the product of the thickness ratio times the true local chord.

DLE, DTE, and DTC array data are always processed; zero to 11 control points data may be specified. In the zero condition, linear leading or trailing edges, array items 1, 2, and 13, must be specified as 0.0. The control code value, array item 12, must be specified as either 0.0 or 2.0. The first 0.0 value encountered for items 2-11 will terminate processing of array information and an addition point created, semispan station with 0.0 offset from the trapezoidal planform. If 11 control points are specified, the semispan station will be created as point 12, thus point 11 should always be specified inboard of the tip station.

Item 12 of the DTC array (t/c) serves as the processing control code. A zero value indicates no processing. Any value specified will be located at the centerline station. Processing procedure for items 2-11 and 13-22 are similar to that for the DLE and DTC arrays.

TABLE 22. DLE ARRAY, VARIABLE DATA SUBARRAY FOR NONLINEAR LEADING EDGES

General information for array DLE:
Blank common reference location = D(1985)
Array size = 23 cells
Array used by subroutine GEØMC to create YC array data

Array Location	D Array Ref Location	Description
1	1985	Y_1, specify 0.0 for Y-coordinate of point 1 at centerline.
2	1986	Y_2, Y-coordinate of control point 2, specify as fraction of semispan or buttock plane station. Must be 0.0 if linear variation, root to tip is desired.
3	1987	Y_3, Y-coordinate of control point 3. Specify 0.0 if only points 1 and 2 are to be used.
4	1988	Y_4, Y-coordinate of control point 4. Specify 0.0 if only points 1-3 are to be used.
5	1989	Y_5, Y-coordinate of control point 5. Specify 0.0 if only points 1-4 are to be used.
6	1990	Y_6, Y-coordinate of control point 6. Specify 0.0 if only points 1-5 are to be used.
7	1991	Y_7, Y-coordinate of control point 7. Specify 0.0 if only points 1-6 are to be used.
8	1992	Y_8, Y-coordinate of control point 8. Specify 0.0 if only points 1-7 are to be used.
9	1993	Y_9, Y-coordinate of control point 9. Specify 0.0 if only points 1-8 are to be used.
10	1994	Y_{10}, Y-coordinate of control point 10. Specify 0.0 if only points 1-9 are to be used.
11	1995	Y_{11}, Y-coordinate of control point 11. Specify 0.0 if only points 1-10 are to be used. If used, locate Y_{11} inboard of tip station.
12	1996	Code word, chordwise data in locations 13-23: 0.0 = $\pm\Delta X$ from leading edge element line 1.0 = fuselage station 2.0 = distance from leading edge element line expressed as fraction of local chord, X/C.
13	1997	X_1, reference value for X-coordinate of leading at Y_1. Must be 0.0 if leading edge element line is to be used.
14	1998	X_2, reference value for X-coordinate of point 2.
15	1999	X_3, reference value for X-coordinate of point 3.

TABLE 22. DLE ARRAY, VARIABLE DATA SUBARRAY FOR NONLINEAR LEADING EDGES (CONCL)

Array Location	D Array Ref Location	Description
16	2000	X_4, reference value for X-coordinate of point 4.
17	2001	X_5, reference value for X-coordinate of point 5.
18	2002	X_6, reference value for X-coordinate of point 6.
19	2003	X_7, reference value for X-coordinate of point 7.
20	2004	X_8, reference value for X-coordinate of point 8.
21	2005	X_9, reference value for X-coordinate of point 9.
22	2006	X_{10}, reference value for X-coordinate of point 10.
23	2007	X_{11}, reference value for X-coordinate of point 11.

TABLE 23. DTE ARRAY, VARIABLE DATA SUBARRAY FOR NONLINEAR TRAILING EDGES

General information for array DTE:
Blank common reference location = D(2008)
Array size - 23 cells
Array used by subroutine GEØMC to create YC array data

Array Location	D Array Ref Location	Description
1	2008	Y_1, specify 0.0 for Y-coordinate of point 1 at centerline.
2	2009	Y_2, Y-coordinate of control point 2, specify as fraction of semispan or buttock plane station. Must be 0.0 if linear variation, root to tip is desired.
3	2010	Y_3, Y-coordinate of control point 3. Specify 0.0 if only points 1 and 2 are to be used.
4	2011	Y_4, Y-coordinate of control point 4. Specify 0.0 if only points 1-3 are to be used.
5	2012	Y_5, Y-coordinate of control point 5. Specify 0.0 if only points 1-4 are to be used.
6	2013	Y_6, Y-coordinate of control point 6. Specify 0.0 if only points 1-5 are to be used.
7	2014	Y_7, Y-coordinate of control point 7. Specify 0.0 if only points 1-6 are to be used.
8	2015	Y_8, Y-coordinate of control point 8. Specify 0.0 if only points 1-7 are to be used.
9	2016	Y_9, Y-coordinate of control point 9. Specify 0.0 if only points 1-8 are to be used.
10	2017	Y_{10}, Y-coordinate of control point 10. Specify 0.0 if only points 1-9 are to be used.
11	2018	Y_{11}, Y-coordinate of control point 11. Specify 0.0 if only points 1-10 are to be used. If used, locate Y_{11} inboard of tip station.
12	2019	Code word, chordwise data in locations 13-23: 0.0 = + X from leading edge element line 1.0 = fuselage station 2.0 = distance from trailing edge element line expressed as fraction of local chord, X/C.
13	2020	X_1, reference value for X-coordinate of trailing edge at Y_1. Must be 0.0 if trailing edge element line is to be used.
14	2021	X_2, reference value for X-coordinate of point 2.
15	2022	X_3, reference value for X-coordinate of point 3.
16	2023	X_4, reference value for X-coordinate of point 4.

TABLE 23. DTE ARRAY, VARIABLE DATA SUBARRAY FOR NONLINEAR TRAILING EDGES (CONCL)

Array Location	D Array Ref Location	Description
17	2024	X_5, reference value for X-coordinate of point 5.
18	2025	X_6, reference value for X-coordinate of point 6.
19	2026	X_7, reference value for X-coordinate of point 7.
20	2027	X_8, reference value for X-coordinate of point 8.
21	2028	X_9, reference value for X-coordinate of point 9.
22	2029	X_{10}, reference value for X-coordinate of point 10.
23	2030	X_{11}, reference value for X-coordinate of point 11.

TABLE 24. DTC ARRAY, VARIABLE DATA SUBARRAY FOR NONLINEAR THICKNESS RATIOS

General information for array DTC:
Blank common reference location = D(2031)
Array size = 22 cells
Array used by subroutine GE∅MC to create YTC array data

Array Location	D Array Ref Location	Description
1	2031	Y_1, specify 0.0 for Y-coordinate of point 1 at centerline.
2	2032	Y_2, Y-coordinate of control point 2, specify as fraction of semispan or buttock plane station. Must be 0.0 if linear variation, root to tip is desired.
3	2033	Y_3, Y-coordinate of control point 3. Specify 0.0 if only points 1 and 2 are to be used.
4	2034	Y_4, Y-coordinate of control point 4. Specify 0.0 if only points 1-3 are to be used.
5	2035	Y_5, Y-coordinate of control point 5. Specify 0.0 if only points 1-4 are to be used.
6	2036	Y_6, Y-coordinate of control point 6. Specify 0.0 if only points 1-5 are to be used.
7	2037	Y_7, Y-coordinate of control point 7. Specify 0.0 if only points 1-6 are to be used.
8	2038	Y_8, Y-coordinate of control point 8. Specify 0.0 if only points 1-7 are to be used.
9	2039	Y_9, Y-coordinate of control point 9. Specify 0.0 if only points 1-8 are to be used.
10	2040	Y_{10}, Y-coordinate of control point 10. Specify 0.0 if only points 1-9 are to be used.
11	2041	Y_{11}, Y-coordinate of control point 11. Specify 0.0 if only points 1-10 are to be used. If used, locate Y_{11} inboard of tip station.
12	2042	$(t/c)_1$, thickness ratio at Y_1, (maximum airfoil depth)/(true aerodynamic chord at Y_1). Specify 0.0 if thickness ratio data in D(243), D(245), D(141), and D(142) are to be used for cross-section analysis. If 0.0, data set is not processed.
13	2043	$(t/c)_2$, thickness ratio at Y_2.
14	2044	$(t/c)_3$, thickness ratio at Y_3.
15	2045	$(t/c)_4$, thickness ratio at Y_4.
16	2046	$(t/c)_5$, thickness ratio at Y_5.
17	2047	$(t/c)_6$, thickness ratio at Y_6.
18	2048	$(t/c)_7$, thickness ratio at Y_7.

TABLE 24. DTC ARRAY, VARIABLE DATA SUBARRAY FOR NONLINEAR THICKNESS RATIOS (CONCL

Array Location	D Array Ref Location	Description
19	2049	$(t/c)_8$, thickness ratio at Y_8.
20	2050	$(t/c)_9$, thickness ratio at Y_9.
21	2051	$(t/c)_{10}$, thickness ratio at Y_{10}.
22	2052	$(t/c)_{11}$, thickness ratio at Y_{11}.

TABLE 25. DAF ARRAY, AIRFOIL CROSS-SECTION DATA

General information for array DAF:

Blank common reference location = T(1401)

Array size = 500 cells

Array contains SWEEP permanent data bank airfoil cross-section data, record 36, mass storage file 1. This array is initialized by GE∅MW. Array data are processed by GE∅MC into array TAF based on input data specifications in locations D(143-152).

Array values can be changed only through revision of the SWEEP permanent data bank deck.

Locations 1-99 contain airfoil equation constants, used under a code value of 1.0 through 8.0 is specified for airfoil type code word in location D(143).

Locations 100-500 are used to specify numerical airfoil depths in table format to be used when a code value of 9.0 is specified in D(143) and appropriate control information is included in locations D(145-152).

Refer to Table 26 for equation constants and Table 27 for airfoil ordinate data.

Array Location	Data Bank Value	Airfoil Code D(143)	Airfoil Code D(147-152)	Description
1	0.0	1.0	N/A	NACA 6300 type, depth coefficient A
2	-9.34463232	1.0	N/A	NACA 6300 type, depth coefficient B
3	27.17720836	1.0	N/A	NACA 6300 type, depth coefficient C
4	-21.38163376	1.0	N/A	NACA 6300 type, depth coefficient D
5	-1.38982828	1.0	N/A	NACA 6300 type, depth coefficient E
6	4.93888600	1.0	N/A	NACA 6300 type, depth coefficient F
7	0.0	1.0	N/A	Not used
8	0.0	1.0	N/A	Not used
9	0.0	1.0	N/A	Not used
10	0.0	1.0	N/A	Not used
11	0.0	1.0	N/A	Not used

TABLE 25. DAF ARRAY, AIRFOIL CROSS-SECTION DATA (CONT)

Array Location	Data Bank Value	Airfoil Code D(143)	Airfoil Code D(147-152)	Description
12	0.0	1.0	N/A	Not used
13	0.0	1.0	N/A	Not used
14	0.0	2.0	N/A	NACA 6400 type, depth coefficient A
15	-13.07250548	2.0	N/A	NACA 6400 type, depth coefficient B
16	40.14816048	2.0	N/A	NACA 6400 type, depth coefficient C
17	-37.6663926	2.0	N/A	NACA 6400 type, depth coefficient D
18	7.17832560	2.0	N/A	NACA 6400 type, depth coefficient E
19	3.41241196	2.0	N/A	NACA 6400 type, depth coefficient F
20	0.0	2.0	N/A	Not used
21	0.0	2.0	N/A	Not used
22	0.0	2.0	N/A	Not used
23	0.0	2.0	N/A	Not used
24	0.0	2.0	N/A	Not used
25	0.0	2.0	N/A	Not used
26	0.0	2.0	N/A	Not used
27	0.0	3.0	N/A	NACA 6500 type, depth coefficient A
28	-15.74362648	3.0	N/A	NACA 6500 type, depth coefficient B
29	51.05901844	3.0	N/A	NACA 6500 type, depth coefficient C
30	-53.25840044	3.0	N/A	NACA 6500 type, depth coefficient D
31	16.31425148	3.0	N/A	NACA 6500 type, depth coefficient E
32	1.62875700	3.0	N/A	NACA 6500 type, depth coefficient F
33	0.0	3.0	N/A	Not used

TABLE 25. DAF ARRAY, AIRFOIL CROSS-SECTION DATA (CONT)

Array Location	Data Bank Value	Airfoil Code D(143)	Airfoil Code D(149-152)	Description
34	0.0	3.0	N/A	Not used
35	0.0	3.0	N/A	Not used
36	0.0	3.0	N/A	Not used
37	0.0	3.0	N/A	Not used
38	0.0	3.0	N/A	Not used
39	0.0	3.0	N/A	Not used
40	-29.9051344	4.0	N/A	NACA 6600 type, depth coefficient A
41	92.8413041	4.0	N/A	NACA 6600 type, depth coefficient B
42	-95.9672048	4.0	N/A	NACA 6600 type, depth coefficient C
43	36.4076344	4.0	N/A	NACA 6600 type, depth coefficient D
44	-6.7531984	4.0	N/A	NACA 6600 type, depth coefficient E
45	3.37659920	4.0	N/A	NACA 6600 type, depth coefficient F
46	0.0	4.0	N/A	Not used
47	0.0	4.0	N/A	Not used
48	0.0	4.0	N/A	Not used
49	0.0	4.0	N/A	Not used
50	0.0	4.0	N/A	Not used
51	0.0	4.0	N/A	Not used
52	0.0	4.0	N/A	Not used
53	0.0	5.0	N/A	Wedge type, depth coefficient A
54	0.0	5.0	N/A	Wedge type, depth coefficient B
55	0.0	5.0	N/A	Wedge type, depth coefficient C

TABLE 25. DAF ARRAY, AIRFOIL CROSS-SECTION DATA (CONT)

Array Location	Data Bank Value	Airfoil Code D(143)	Airfoil Code D(147-152)	Description
56	0.0	5.0	N/A	Wedge type, depth coefficient D
57	1.0	5.0	N/A	Wedge type, depth coefficient E
58	0.0	5.0	N/A	Wedge type, depth coefficient F
59	0.0	5.0	N/A	Not used
60	0.0	5.0	N/A	Not used
61	0.0	5.0	N/A	Not used
62	0.0	5.0	N/A	Not used
63	0.0	5.0	N/A	Not used
64	0.0	5.0	N/A	Not used
65	0.0	5.0	N/A	Not used
66	0.0	6.0	N/A	Arc type, depth coefficient A
67	0.0	6.0	N/A	Arc type, depth coefficient B
68	16.0	6.0	N/A	Arc type, depth coefficient C
69	-32.0	6.0	N/A	Arc type, depth coefficient D
70	16.0	6.0	N/A	Arc type, depth coefficient E
71	0.0	6.0	N/A	Arc type, depth coefficient F
72	0.0	6.0	N/A	Not used
73	0.0	6.0	N/A	Not used
74	0.0	6.0	N/A	Not used
75	0.0	6.0	N/A	Not used
76	0.0	6.0	N/A	Not used
77	0.0	6.0	N/A	Not used
78	0.0	6.0	N/A	Not used
79-100	0.0	7.0,8.0	N/A	Not used. Locations 79-91 may be used for airfoil 7 if data is created.

TABLE 25. DAF ARRAY, AIRFOIL CROSS-SECTION DATA (CONT)

Array Location	Data Bank Value	Airfoil Code D(143)	Airfoil Code D(147-152)	Description
Locations 100 to 499 are divided into eight 50-cell blocks for airfoil depth table data. Block 1, locations 100-149, contain the airfoil X/C values, points at which depth data for different airfoils are specified in blocks 2-7. (Block 8 is currently not used.) X/C and depths must be compatible; 3 to 48 points may be specified in items 2-49 of each block. The number of X/C points are specified in item 1, block 1 (location 100). Item 1 of blocks 2-7 may be used by the user as a numerical identification code for the airfoil. Item 50 of blocks 2-7 is used to specify the normalizing factor for each airfoil - the ordinate value of the maximum airfoil depth. Individual airfoil depths may be specified in terms of actual mold line depth values or fractions of the maximum depth. The SWEEP permanent data bank contains no data in locations 100-500.				
100	0.0	9.0	N/A	Number of X/C points in depth table
101-148	0.0	9.0	N/A	X/C values, fraction of chord leading edge to trailing edge.
149	0.0	9.0	N/A	Not used
150	0.0	9.0	1.0	User code number airfoil No. 1
151-198	0.0	9.0	1.0	Depth values for airfoil No. 1 at X/C points specified in 101-148.
199	0.0	9.0	1.0	Maximum depth, airfoil No. 1
200	0.0	9.0	2.0	User code number, airfoil No. 2
201-248	0.0	9.0	2.0	Depth values for airfoil No. 2 at X/C points specified in 101-148
249	0.0	9.0	2.0	Maximum depth, airfoil No. 2
250	0.0	9.0	3.0	User code number, airfoil No. 3
251-298	0.0	9.0	3.0	Depth values for airfoil No. 3 at X/C points specified in 101-148
299	0.0	9.0	3.0	Maximum depth, airfoil No. 3
300	0.0	9.0	4.0	User code number, airfoil No. 4

TABLE 25. DAF ARRAY, AIRFOIL CROSS-SECTION DATA (CONCL)

Array Location	Data Bank Value	Airfoil Code D(143)	Airfoil Code D(147-152)	Description
301-348	0.0	9.0	4.0	Depth values for airfoil No. 4 at X/C points specified in 101-148
349	0.0	9.0	4.0	Maximum depth, airfoil No. 4
350	0.0	9.0	5.0	User code number, airfoil No. 5
351-398	0.0	9.0	5.0	Depth values for airfoil No. 5 at X/C points specified in 101-148
399	0.0	9.0	5.0	Maximum depth, airfoil No. 5
400	0.0	9.0	6.0	User code number, airfoil No. 6
401-448	0.0	9.0	6.0	Depth values for airfoil No. 6 at X/C points specified in 101-148
449	0.0	9.0	6.0	Maximum depth, airfoil No. 6
450-500	0.0	9.0	7.0	Not used. Airfoil 7 may be added, but require revision in subroutine GEØMC.

TABLE 26. POLYNOMIAL COEFFICIENT OF PROPERTIES OF NORMALIZED AIRFOILS

Coefficients for Airfoil Ordinates						
Airfoil Type	Polynomial Coefficients					
	a	b	c	d	e	f
63	0.	- 9.34463232	+27.17720836	-21.38163376	- 1.38982828	+4.93888600
64	0.	-13.07250548	+40.14816048	-37.66639256	+ 7.17832560	+3.41241196
65	0.	-15.74362648	+51.05901844	-53.25840044	+16.31425148	+1.62875700
66	-29:9051344	+92.8413041	-95.9672048	+36.4076344	- 6.7531984	+3.3765992
Arc	0.	0.	+16.0000000	-32.0000000	+16.00000000	0.
Wedge	0.	0.	0.	0.	1.00000000	0.

$$Z = (aX^6 + bX^5 + cX^4 + dX^3 + eX^2 + fX)^{1/2}$$

Z is a fraction of the max depth or, $D_X = C \left(\frac{t}{c}\right)_{max} Z = D_{max} Z$

X is a fraction of the chord = $\frac{x}{c}$

TABLE 27. AIRFOIL ORDINATES

X/C	63A010	64A010	65A010	66A010	Arc	30-70 Hex
.0000	.0000	.0000	.0000	.0000	.0000	.0000
.0050	.1632	.1608	.1530	.1536	.0198	.0167
.0075	.1966	.1938	.1856	.1848	.0298	.0150
.0125	.2500	.2450	.2366	.2308	.0494	.0417
.0250	.3464	.3376	.3246	.3060	.0976	.0834
.0500	.4824	.4654	.4364	.4192	.1900	.1667
.0750	.5834	.5610	.5300	.5080	.2676	.2500
.1000	.6648	.6398	.6080	.5840	.3600	.3333
.1500	.7900	.7626	.7616	.7032	.5100	.5000
.2000	.8800	.8544	.8254	.8000	.6400	.6667
.2500	.9428	.9212	.8966	.8712	.7500	.8333
.3000	.9826	.9674	.9484	.9280	.8400	1.0000
.3500	.9990	.9936	.9824	.9664	.9100	1.0000
.4000	.9936	.9990	.9990	.9900	.9600	1.0000
.4500	.9674	.9788	.9966	1.0000	.9900	1.0000
.5000	.9226	.9378	.9726	.9960	1.0000	1.0000
.5500	.8622	.8776	.9264	.9760	.9900	1.0000
.6000	.7886	.8040	.8608	.9368	.9600	1.0000
.6500	.7034	.7194	.7798	.8700	.9100	1.0000
.7000	.6088	.6254	.6864	.7720	.8400	1.0000
.7500	.5090	.5246	.5824	.6520	.7500	.8333
.8000	.4080	.4206	.4704	.5152	.6400	.6667
.8500	.3070	.3164	.3542	.3940	.5100	.5000
.9000	.2060	.2124	.2376	.2636	.3600	.3333
.9500	.1050	.1082	.1208	.1328	.1900	.1667
1.0000	.0042	.0042	.0042	.0042	.0000	.0000

TABLE 28. AFD ARRAY

General information for array AFD:
Blank common reference location = T(411)
Array sign = 6 cells
Array data set up by subroutine GEØMW from data in array DAF based on airfoil-type code value in input data location D(143). Array data used by subroutine DMAX only if the code value in D(143) is 1.0-8.0.

Array Location	Description
1	Coefficient A for airfoil depth equation
2	Coefficient B for airfoil depth equation
3	Coefficient C for airfoil depth equation
4	Coefficient D for airfoil depth equation
5	Coefficient E for airfoil depth equation
6	Coefficient F for airfoil depth equation

TABLE 29. TAF ARRAY, AIRFOIL DEPTH DATA

General information for array TAF:
Blank common reference location = T(431)
Array size = 350 cells
Array data created by subroutine GEØMC for use by subroutine DMAX only if code value of 9.0 is specified in input data location D(143).

Array Location	Description
1	0.0, inboard airfoil control station. Reference airfoil depth data in location 51-98, same as values in 101-148.
2	Y_1, airfoil control station 1. Reference airfoil depth data in locations 101-148. Station value as specified in input data location D(145). If 0.0, station value is set to 2.0. Airfoil code for this station is specified in input data location D(149).
3	Y_2, airfoil control station 2. Reference airfoil depth data in locations 151-198. Station value as specified in input data location D(146), airfoil code in D(150). If D(146) is 0.0, station value is set to b/2 and the airfoil depth data in location 101-148 is moved to 151-198.
4	Y_3, airfoil control station 3. Reference airfoil depth data in locations 201-248. Station value as specified in input data location D(147), airfoil code in D(151). If D(147) is 0.0, station value is set to b/2, and airfoil depth data in locations 151-198 is moved to 201-248.
5	Y_4, airfoil control station 4. Reference airfoil depth data in locations 251-298. Station value as specified in input data location D(148), airfoil code in D(152). If D(148) is 0.0, station value is set to b/2, and airfoil depth data in locations 201-248 is moved to 251-298.
6	b/2, outboard airfoil control station if data is specified in input data locations D(145-148). Reference airfoil depth data in locations 301-348, same as values in 251-298.
7	ΔY_1, distance between inboard airfoil control station and station 1
8	ΔY_2, distance between airfoil control stations 1 and 2
9	ΔY_3, distance between airfoil control stations 2 and 3
10	ΔY_4, distance between airfoil control stations 3 and 4
11	ΔY_5, distance between airfoil control station 4 and the outboard station
12	Maximum airfoil depth for each data set, GEØMC

TABLE 29. TAF ARRAY, AIRFOIL DEPTH DATA (CONT)

Array Location	Description
Locations 12-23 used to save intermediate calculation data by DMAX during linear interpolation for local depths.	
12	X/C distance from local depth analysis point to forward X/C point of the two points in X/C table that bracket analysis point.
13	Y-distance between analysis point and airfoil control station immediately inboard.
14	Δ X/C, X/C distance between the two adjacent X/C points that bracke bracket X/C point at which local depth is to be calculated.
15	ΔY, Y-distance between the two airfoil control stations that bracket analysis point
16	R_X, ratio of values in location 12 and 14
17	R_Y, ratio of values in locations 13 and 15
18	Depth at aft X/C point from outboard airfoil control station reference airfoil depth table.
19	Depth at aft X/C point from inboard airfoil control station reference airfoil depth table.
20	Depth at forward X/C point from outboard airfoil control station reference airfoil depth table.
21	Depth at forward X/C point from inboard airfoil control station reference airfoil depth table.
22	Depth at X/C analysis value for airfoil at outboard airfoil control station
23	Depth at X/C analysis value for airfoil at inboard airfoil control station
24-50	Not used
51-98	Airfoil depth table from array DAF based on airfoil code in location D(149), positioned on plan form at spanwise station in location 1.
99-100	Not used
101-148	Airfoil depth table from array DAF based on airfoil code in location D(149), positioned on plan form at spanwise station in location 2.
149-150	Not used
151-198	Airfoil depth table from array DAF based on airfoil code in location D(150), positioned on plan form at spanwise station in location 3. If D(146) is 0.0, data in location 101-148 is moved to this block.

TABLE 29. TAF ARRAY, AIRFOIL DEPTH DATA (CONCL)

Array Location	Description
199-200	Not used
201-248	Airfoil depth table from array DAF based on airfoil code in location D(151), positioned on planform as spanwise station in location 4. If D(147) is 0.0, data in location 151-198 are moved to this block.
249-250	Not used
251-298	Airfoil depth table from array DAF based on airfoil code in location D(152), positioned on planform as spanwise station in location 5. If D(148) is 0.0, data in location 201-248 are moved to this block.
299-300	Not used
301-348	Airfoil depth table from array DAF based on airfoil code in location D(152), positioned on planform at spanwise station in location 6. Same data as in 251-298. Not used if location D(148) is 0.0.
NOTE	If values are specified in input data locations D(145-148) but corresponding airfoil code values in D(149-152) are negative, 0.0 or larger than 6.0, the program will use the airfoil No. 1 table data in DAF (151-198).

TXY ARRAY

The TXY array is the general storage array used by the geometry subroutines for storage and/or access of computed geometry data. The contents of this array are defined in Table 30. Subarrays YTB, YLE, YTE, and YS are part of array TXY. Subarrays YTB, YLE, and YTE are defined in Tables 31, 32, and 33. YS is defined in Table 30.

Overall control for computations of values stored in the array is centered in subroutine GEØMW. This subroutine computes values for the general geometry parameters and governs data computations for the subarrays. The contents of array TXY are processed by subroutine GEØMW into T array and geometry subarray locations for later use by other module subroutines. The output geometry summary data printed under control of IP (6) by subroutine PRTG are processed from the TXY array into the output data array TD by subroutine GCØMP.

TABLE 30. TXY ARRAY, GEOMETRY DATA

General information for array TXY:

Blank common reference location = T(801)
Array size = 500 cells

Subarrays:

1. YTB, 124 cells, TXY (55-178), torque-box data
2. YLE, 109 cells, TXY (179-287), leading edge data
3. YTE, 109 cells, TXY (288-396), trailing edge data
4. YS, 11 cells, TXY (490-500), analysis control stations

All dimensions are in inches or as noted.

Array Location	Description
1	S', exposed area, sq ft
2	AR', exposed aspect ratio
3	λ', exposed taper ratio
4	t/c', thickness ratio at exposed root chord
5	σ', exposed thickness ratio taper
6	b'/2, exposed semispan
7	$b_1/2$, side of body station
8	b/2, semispan
9	C_R', exposed root chord
10	C_T, theoretical tip chord
11	AR_S', exposed aspect ratio, structural reference system
12	λ_S', exposed taper ratio, structural reference system
13	$(t/c)'_S$, exposed thickness ratio, structural reference system
14	σ_S', exposed thickness ratio taper, structural reference system
15	$b_S'/2$, exposed structural semispan
16	$b_{1S}'/2$, side of body structural station
17	$b_S/2$, structural semispan
18	C_{RS}', exposed structural root chord
19	C_{TS}', tip chord, structural reference system

TABLE 30. TXY ARRAY, GEOMETRY DATA (CONT)

Array Location	Description
20	C_{LE}, X-axis intercept for leading edge element line, fuselage station
21	C_{FS}, X-axis intercept for front spar reference line, fuselage station
22	C_{EA}, X-axis intercept for structural reference line Y, fuselage station
23	C_{RS}, X-axis intercept for rear spar reference line, fuselage station
24	C_{TE}, X-axis intercept for trailing edge element line, fuselage station
25	C_R, aerodynamic root chord, X-axis intercept for aerodynamic chord variation equation
26	C_{RS}, structural root chord, X-axis intercept for structural chord variation equation
27	Tan Λ_{LE}, slope of leading edge element line
28	Tan Λ_{FS}, slope of front span reference line
29	Tan Λ_{EA}, slope of structural reverence line
30	Tan Λ_{RS}, slope of rear spar reference line
31	Tan Λ_{TE}, slope of trailing edge element line
32	Tan AC, slope for aerodynamic chord variation equation
33	Tan AC_S, slope for structural chord variation equation
34	Sin Λ_{LE}, sine of sweep angle for leading edge element line
35	Sin Λ_{FS}, sine of sweep angle for front spar reference line
36	Sin Λ_{EA}, sine of sweep angle for structural reference line
37	Sin Λ_{RS}, sine of sweep angle for rear spar reference line
38	Sin Λ_{TE}, sine of sweep angle for trailing edge element line
39	Cos Λ_{LE}, cosine of sweep angle for leading edge element line
40	Cos Λ_{FS}, cosine of sweep angle for front spar reference line

TABLE 30. TXY ARRAY, GEOMETRY DATA (CONT)

Array Location	Description
41	$\text{Cos}\,\Lambda_{EA}$, cosine of sweep angle for structural reference line
42	$\text{Cos}\,\Lambda_{RS}$, cosine of sweep angle for rear spar reference line
43	$\text{Cos}\,\Lambda_{TE}$, cosine of sweep angle for trailing edge element line
44	Tan (t/c), slope for thickness ratio variation equation
45	$\text{Tan}\,\Lambda_{.5c}$, slope of 50% chord element line
46	$C_{.5c}$, X-axis intercept for 50% chord element line, fuselage station
47	$^{-1}/(\text{Tan}\,\Lambda_{EA})$, slope of line normal to structural reference line
48	C_{sci}, X-axis intercept for line normal to structural reference line, fuselage station
49	$\text{Tan}\,W_{sc}$, slope for torque-box structural width variation equation
50	C_{WSC}, X-axis intercept for torque-box structural width variation equation
51	$\text{Tan}\,\Lambda_{o}$, tangent of planform reference sweep angle
52	$\text{Sin}\,\Lambda_{o}$, sine of planform reference sweep angle
53	$\text{Cos}\,\Lambda_{o}$, cosine of planform reference sweep angle
54	$C\,\Lambda_{o}$, X-axis intercept for planform reference sweep element line, fuselage station
55-178	Subarray YTB, refer to Table 31
179-287	Subarray YLE, Table 32
288-396	Subarray YTE, Table 33
397-420	Not used
421	X_{LE}, X-coordinate of leading edge element line at side of body
422	X_{FS}, X-coordinate of front spar line at side of body
423	X_{EA}, X-coordinate of structural reference line at side of body
424	X_{RS}, X-coordinate of rear spar line at side of body
425	X_{TE}, X-coordinate of trailing edge element line at side of body
426	X_{LE}, X-coordinate of leading edge element line at pivot station

TABLE 30. TXY ARRAY, GEOMETRY DATA (CONT)

Array Location	Description
427	X_{FS}, X-coordinate of front spar line at pivot station
428	X_{EA}, X-coordinate of structural reference line at pivot station
429	X_{RS}. X-coordinate of rear spar line at pivot station
430	X_{TE}, X-coordinate of trailing edge element line at pivot station
431	X_{LE}, X-coordinate of leading edge element line at tip station
432	X_{FS}, X-coordinate of front spar line at tip station
433	X_{EA}, X-coordinate of structural reference line at tip station
434	X_{RS}, X-coordinate of rear spar at tip station
435	X_{TE}, X-coordinate of trailing edge lement line at tip station
436	$X_{.25c}$, X-coordinate of 25% chord element line at tip station
437-450	Not used
451	t/c_{RT}, thickness ratio at centerline station
452	t/c_{TIP}, thickness ratio at tip station
453	Y_{IB}, inboard thickness ratio control station, from input data location 141
454	Y_{OB}, outboard thickness ratio control station, from input data location 142
455	D_{IB}, maximum airfoil depth at inboard thickness ratio control station from product of t/c in input data location 243 and trapazoidal chord at inboard control station
456	D_{OB}, maximum airfoil depth at outboard thickness ratio control station, from product of t/c data in input locations 243 and 245, and trapezoidal chord at outboard control station
457	D_{RT}, maximum airfoil depth at center-line station Z-axis intercept for depth variation equation
458	D_{TIP}, maximum airfoil depth at tip station
459	TAN D, slope for spanwise depth equation, linear variation, root to tip
460-464	Not used

TABLE 30. TXY ARRAY, GEOMETRY DATA (CONCL)

Array Location	Description
465	S, gross planform area, sq in.
466	b, total planform span
467	Λ_o, planform reference sweep angle, radians
468	$(1 + \lambda)$, planform taper ratio plus 1.0
469	Element line for planform reference sweep angle, fraction of chord
470	$C_{.25c}$, X-axis intercept for 25% element line, fuselage station
471	Tan $\Lambda_{.25c}$, slope of 25% element line
472	Sin $\Lambda_{.25c}$, sine of sweep angle for 25% element line
473	Cos $\Lambda_{.25c}$, cosine of sweep angle for 25% element line
474	$X_{.25c}$, X-coordinate of 25% element line at tip station
475-489	Not used
490-500	Subarray Ys. Structural reference stations for the 11 analysis control stations, stored root to tip. Array size = 11 cells.

TABLE 31. YTB ARRAY, TORQUE-BOX GEOMETRY DATA

General information for subarray YTB:

Blank common reference location = TXY(55)
Array size = 124 cells

Array Location	Description
1-11	Y_{EA} (1-11), Y-coordinate of 11 analysis control stations on the structural reference line, root to tip
12-22	X_{EA}(1-11), X-coordinate of 11 analysis control stations on the structural reference line, root to tip
23	W_{c-s}, center-section width at outer panel analysis control station Y_{EA}(1)
24-34	W_{sc}(1-11), structural width of torque-box for the 11 analysis control stations, root to tip
35	Not used
36-46	D_{ave}(1-11), average torque-box depth for the 11 analysis control stations, root to tip
47	Not used
48-58	XA(1-11), cross-sectional area of torque-box for the 11 analysis control stations, root to tip, sq in.
59-69	C(1-11), true aerodynamic chord at the Y-coordinate station for the 11 analysis control stations, root to tip
70-80	D_{max}(1-11), maximum airfoil depth at the Y-coordinate station for the 11 analysis control stations, root to tip
81	Not used
82-91	S_{TB}(1-10), planform area for the 10 torque-box segments defined by the 11 structural chords, root to tip, sq in.
92	Not used
93-102	VOL_{TB}(1-10), volume for the 10 torque-box segments defined by the 11 structural chords, root to tip, cu in.
103	Not used
104-113	Y_{CG}(1-10), Y-coordinate for the geometrical centroid of the 10 trapezoidal panels defined by the 11 structural chords, root to tip

TABLE 31. YTB ARRAY, TORQUE-BOX GEOMETRY DATA (CONCL)

Array Location	Description
114	X_{CGC-S}, X-coordinate for center-section centroid, average of center-section front and rear spar stations
115-124	X_{CG}(1-10), X-coordinate for the geometrical centroid of the 10 trapezoidal panels, defined by the 11 structural chords, root to tip

TABLE 32. YLE ARRAY, LEADING EDGE GEOMETRY DATA

General information for subarray YLE:

Blank common reference location = TXY(179)
Array size = 109 cells

Array Location	Description
1-11	Y_{FS}(1-11), Y-coordinate at intersection of the structural chord at each analysis control station and the front spar, root to tip
12	X_{FSC-S}, X-coordinate of center-section front spar at outer panel analysis control station Y_{EA}(1)
13-23	X_{FS}(1-11), X-coordinate at intersection of the structural chord at each analysis control station and the front spar, root to tip
24	D_{FSC-S}, depth of center-section front spar at point defined by values in Y_{TB}(1) and Y_{LE}(12)
25-35	D_{FS}(1-11), depth at the front spar plane for the 11 analysis control stations, root to tip
36-46	K_{sec}(1-11), structural box average to maximum depth factor at each analysis control station, root to tip
47-58	Not used
59-69	$J_{.10}$(1-11), structural box section J for an assumed web gage value of 0.10 at each analysis control station, root to tip, $in.^4$
70-79	S_{LE}(1-10), planform area of leading edge panels bounded by the Y-coordinates of the 11 analysis control stations, the front spar and panel leading edge defined by a straight line joining the intersection points of the true leading edge and the Y-coordinates of the analysis control stations, root to tip
80-89	Not used
90-99	Y_{CPLE}(1-10), Y-coordinate for centroid of panel surface area defined in location 70-79, each panel treated as trapezoidal sections, root to tip
100-109	X_{CPLE}(1-10), X-coordinate for centroid corresponding to Y_{CPLE}(1-10) above, assumed to be along the mid-chord element of each panel, root to tip

TABLE 33. YTE ARRAY, TRAILING EDGE GEOMETRY DATA

Array Location	Description
1-11	Y_{RS}(1-11), Y-coordinate of intersection of the structural chord at each analysis control station and the rear spar, root to tip
12	X_{RSC-S}, X-coordinate of center-section rear spar at outer panel analysis control station Y_{EA}(1)
13-23	X_{RS}(1-11), X-coordinate of intersection of the structural chord of each analysis control station and the rear spar, root to tip
24	D_{RSC-S}, depth of center-section rear spar at point defined by values in Y_{TB}(1) and Y_{TE}(12)
25-35	D_{RS}(1-11), depth at the rear spar plane for the 11 analysis control stations, root to tip
36-46	D_{max}(1-11), maximum depth of structural cross-section of the torque-box at each analysis control station, from YTC(60) values, root to tip
47-58	Not used
59-69	$J_{.20}$(1-11), structural box section J for an assumed web gage value of 0.20 at each analysis control station, root to tip
70-79	S_{TE}(1-10), planform area of trailing edge panels bounded by the Y-coordinates of the 11 analysis control stations, the rear spar and the panel trailing edge defined by a straight line joining the intersection points of the true trailing edge and the Y-coordinates of the analysis control stations, root to tip
80-89	Not used
90-99	Y_{CPTE}(1-10), Y-coordinate for centroid of panel surface area defined in locations 70-79, each panel treated as trapezoidal sections, root to tip
100-109	X_{CPTE}(1-10), X-coordinate for centroid corresponding to Y_{CPTE}(1-10) above, assumed to be along the mid-chord element of each panel, root to tip

TABLE 34. T ARRAY, LOCATIONS 1-200, 489-553

General information for array T:
Blank common reference location = 1
Array size = 2060 cells
Locations 1-195 contain general geometry and other miscellaneous data for use by all overlays of wing and empennage module. Data are created by subroutines CASE, GEØMW, and VSGEØM of overlay (8,0). Data created by subroutines other than GEØMW are identified by name of that subroutine. Data in locations 489-553 are initially created by GEØMW and reinitialized by overlay (16,0) subroutine WDDATA with data from array TG.

Array Location	Original Array Location	Variable Name	Description
1	-	STØT	Total surface area per vehicle, sq ft
2	-	SEXP	Total exposed surface area per vehicle, sq ft
3	-	-	R, element line tangent factor, $R = 4(1+\lambda)/AR(1-\lambda)$
4	-	-	D are at b1/2
5	YTB(23)	WCSEC	Center section box width
6	TXY(53)	-	$\cos \Lambda_O$, cosine of planform reference sweep angle
7	TXY(52)	-	$\sin \Lambda_O$, sine of planform reference sweep angle
8	TXY(51)	-	$\tan \Lambda_O$, tangent of planform reference sweep angle
9	TXY(54)	-	$C \Lambda_O$, X-axis intercept for planform reference sweep element line
10	YC(116)	TCCL	$(t/c)_R$, thickness ratio at center-line station
11	YC(117)	TCTP	$(t/c)_{TIP}$, thickness ratio at tip station
12	TXY(8)	BØ2	b/2, semispan
13		AC	Arc centroid of torque-box section, average factor
14	-	TAU	τ, structural chord factor
15	TXY(7)	BS1Ø2	$b_1/2$, side of body station
16	TXY(16)	B1SØ2	$b_{1s}/2$, side of body structural station
17	-	SPTIP	S_{TIP}, sq ft/vehicle
18	-	GPNZ(1)	Positive gust load factor, 0.0, not used, CASE
19	-	(2)	Negative gust load factor, 0.0, not used, CASE
20	D(85)	DPNZ(1)	Positive design load factor, limit, CASE
21	D(86)	(2)	Negative design load factor, limit, CASE

TABLE 34. T ARRAY, LOCATIONS 1-200, 489-553 (CONT)

Array Location	Original Array Location	Variable Name	Description
22	-	DGWI	Design gross weight for current analysis PRØG, ACPRØG
23	-	-	$R \cdot \text{Sin}\,\Lambda_{EA} \cdot \text{Cos}\,\Lambda_{EA}$, constant
24	-	SPBØX	$\Sigma S'_{BOX}$, total exposed torque-box planform area, sq ft/vehicle
25	-	SPLE	$\Sigma S'_{LE}$, total exposed leading edge planform area, sq ft/vehicle, GCNTL
26	-	SPTE	$\Sigma S'_{TE}$, total exposed trading edge planform area, sq ft/vehicle, GCNTL
27-36	YTB(82-91)	SPNL(1-10)	$S_{TE}(1\text{-}10)$, torque-box panel areas, tip to root, sq ft/side
37	TXY(10)	CTIP	C_{TIP}, theoretical tip chord
38	TXY(32)	TANAC	Tan AC, slope for aerodynamic chord variation equation
39	-	YPVT	Y_P, Y-coordinate of pivot, VSGEØM
40	-	XPVT	X_P, X-coordinate of pivot, VSGEØM
41	-	YSPVT	Y p, structural reference line station for pivot, VSGEØM
42	-	-	$(X/C)_{FS}$, equivalent chord element line, front spar
43	-	-	$(X/C)_{RS}$, equivalent chord element line, rear spar
44	-	-	$(X/C)_{EA}$, equivalent chord element line, structural reference line
45	-	CPVT	C_P, aerodynamic chord at pivot station, VSGEØM
46	-	-	ΔC_P, chordwise distance between the pivot and leading edge, VSGEØM
47	-	-	X_{LEP}, X-coordinate of leading edge at pivot station, VSGEØM
48	-	-	Y_{EAP}, Y-coordinate of intersection point of structural reference line and line from pivot normal to structural reference line, VSGEØM
49	-	-	X_{EAP}, X-coordinate for point previously defined, VSGEØM
50	-	-	C_{SCP}, X-axis intercept for line from pivot normal to structural reference line, VSGEØM
51	-	XSPVT	X p, X-coordinate of pivot point, structural reference system, VSGEØM
52	TXY(25)	CR	C_R, aerodynamic root chord
53	-	YMACP	Y_{MAC}, Y-coordinate for exposed panel MAC

TABLE 34. T ARRAY, LOCATIONS 1-200, 489-553 (CONT)

Array Location	Original Array Location	Variable Name	Description
54	-	XMACP	X_{MAC}, X-coordinate of structural reference line for exposed panel MAC
55	-	CMACP	C_{MAC}, mean aerodynamic chord, MAC, exposed panel
56	-	DMACP	D_{MAC}, maximum airfoil depth at Y_{MAC}
57	-	WHVID	Factor to calculate totals/vehicle for wing, horizontal tail, and vertical tail, based on number of panels. 1.0 for wing and horizontal tail. 1.0 for 2 vertical tail panels, 2.0 for 1 vertical tail panel, CASE
58	CCI(114)	YIBFL	Inboard Y-coordinate for fuel cell 1, fuel cell 2 if used, FDIS
59	CCI(115)	YØBFL	Outboard Y-coordinate for fuel cell 1, fuel cell 2 if used, FDIS
60	-	-	S_G, gross planform area, sq in.
61	TXY(2)	-	AR', aspect ratio for exposed panel
62	YTB(114)	XCSEC	X_{CG} C_{SEC}, X-coordinate for centroid of center-section panel
63	TXY(4)	TCP	t/c', thickness ratio at exposed root chord
64	TXY(3)	TRP	λ', exposed panel taper ratio
65	TXY(5)	SIGP	σ', exposed panel thickness ratio taper
66	YC(122)	DMCL	D_{RT}, maximum airfoil depth at centerline station
67	YC(123)	DMTP	D_{TIP}, maximum airfoil depth at tip station
68	TXY(29)	TANEA	Tan Λ_{EA}, slope of structural reference line
69	-	-	$[1.0 + (\text{Tan}\,\Lambda_{EA})^2]^{1/2}$
70	-	-	$(1.0 + \lambda)$
71	-	-	$(RS\text{-}FS)_{\perp}$, torque box width factor
72	-	-	Not used
73	-	-	Not used
74	-	-	Not used
75	TXY(36)	SINEA	Sin Λ_{EA}, sine of sweep angle of structural reference line
76	TXY(41)	CØSEA	Cos Λ_{EA}, cosine of sweep angle of structural reference line
77	-	-	$(1.0\text{-}\lambda)$
78	-	-	$(1.0\text{-}\lambda\,\sigma)$
79	-	-	$(1.0\text{-}\lambda')$
80	-	-	$(1.0\text{-}\lambda'\,\sigma')$
81	TXY(17)	BSØ2	$b_s/2$, structural semispan
82	-	-	b', total exposed span

TABLE 34. T ARRAY, LOCATIONS 1-200, 489-553 (CONT)

Array Location	Original Array Location	Variable Name	Description
83	TXY(15)	BPSØ2	b's/2, exposed semispan
84	-	-	(1.0+λ')
85	TXY(18)	-	C_{RS}', exposed structural root chord
86	-	TSIG	σ, thickness ratio taper
87	-	TANDX	Tan ΔX_{Λ}, slope of line defining X distance between the structural reference line and 50% element line
88	-	CCLDX	$C_{\Delta X\Lambda}$, X-axis intercept for structural reference line offset
89	TXY(9)	CRP	C_R', exposed aerodynamic root chord
90	-	TANDH	Tan Λ_{DIH}, slope of wing reference plane dihedral
91	-	CCLDH	C_{DIH}, Z-axis intercept for dihedral
92	TXY(45)	TAN5	Tan $\Lambda_{.5C}$, slope of 50% element line
93	TXY(46)	CCL5	$C\Lambda_{.5C}$, X-axis intercept for 50% element line
94	-	-	λ'σ'
95	-	SCSEC	$S_{C\text{-}SEC}$, 1.0 or center-section panel area, sq ft/vehicle
96	TXY(6)	BEXP	b'/2, exposed semi-span
97	-	WFL(1)	$Y_{CP\ fuel}$, Y-coordinate for centroid of design fuel, ABDW
98	-	WFL(2)	$W_{fuel\ design}$, design fuel weight, lb/vehicle, ABDW
99	-	WFL(3)	$W_{fuel\ total}$, total fuel weight, lb/vehicle, ABDW
100-110	YTB(59-69)	TBCA(1-11)	$C_{1\text{-}11}$, aerodynamic chord at analysis control stations
111-121	-	YRT(1-11)	[b_S/2-Y (1-11)], distance along structural reference line from tip station to each analysis control station, root to tip
122	TXY(27)	TANØ(1)	Tan Λ_{LE}
123	TXY(28)	TANØ(2)	Tan Λ_{ES}
124	TXY(29)	TANØ(3)	Tan Λ_{EA}
125	TXY(30)	TANØ(4)	Tan Λ_{RS}
126	TXY(31)	TANØ(5)	Tan Λ_{TE}
127	TXY(471)	TANØ(6)	Tan $\Lambda_{.25C}$
128	TXY(32)	TANØ(7)	Tan AC
129	TXY(33)	TANØ(8)	Tan AC_S
130	TXY(49)	TANØ(9)	Tan W_{SC}
131	TXY(20)	CCLØ(1)	C_{LE}
132	TXY(21)	CCLØ(2)	C_{FS}
133	TXY(22)	CCLØ(3)	C_{EA}
134	TXY(23)	CCLØ(4)	C_{RS}

TABLE 34. T ARRAY, LOCATIONS 1-200, 489-553 (CONT)

Array Location	Original Array Location	Variable Name	Description
135	TXY(24)	CCLØ(5)	C_{TE}
136	TXY(470)	CCLØ(6)	$C_{.25C}$
137	TXY(25)	CCLØ(7)	C_{AC}
138	TXY(27)	CCLØ(8)	C_{ACS}
139	TXY(50)	CCLØ(9)	C_{WSC}
140	TXY(34)	SINØ(1)	$\sin \Lambda_{LE}$
141	TXY(35)	SINØ(2)	$\sin \Lambda_{FS}$
142	TXY(36)	SINØ(3)	$\sin \Lambda_{EA}$
143	TXY(37)	SINØ(4)	$\sin \Lambda_{RS}$
144	TXY(38)	SINØ(5)	$\sin \Lambda_{TE}$
145	TXY(472)	SINØ(6)	$\sin \Lambda_{.25C}$
146	TXY(39)	CØSØ(1)	$\cos \Lambda_{LE}$
147	TXY(40)	CØSØ(2)	$\cos \Lambda_{FS}$
148	TXY(41)	CØSØ(3)	$\cos \Lambda_{EA}$
149	TXY(42)	CØSØ(4)	$\cos \Lambda_{RS}$
150	TXY(43)	CØSØ(5)	$\cos \Lambda_{TE}$
151	TXY(473)	CØSØ(6)	$\cos \Lambda_{.25C}$
152	TXY(47)	CØTEA	$(-1.0/\tan \Lambda_{EA})$
153-163	YLE(25-35)	TBFS(1-11)	$D_{FS(1-11)}$, depth at front spar, root to tip
164	YLE(24)	TBFS(12)	D_{FS} C-SEC, center-section front spar depth
165-175	YTE(25-35)	TBFS(1-11)	$D_{RS(1-11)}$, depth at rear spar, root to tip
176	YTE(24)	TBFS(12)	D_{RS} C-SEC, center-section rear spar depth
177-186	D(1088-1097)	DLPNL(1-10)	$\delta_{TB(1-10)}$, torque-box panel weight factors, root to tip, CASE
187	D(250)	DELWG	δ_W, total panel weight factor, CASE
188	D(600)	DLTBX	δ_{TB}, total torque-box weight factor, CASE
189	D(601)	DELLE	δ_{LE}, total leading edge weight factor, CASE
190	D(602)	DELTE	δ_{TE}, total trailing edge weight factor, CASE
191	D(603)	DMISC	δ_{MISC}, miscellaneous structure weight factor, CASE
192	-	DWGTB	$\delta_W \cdot \delta_{TB}$, CASE
193	-	DWGLE	$\delta_W \cdot \delta_{LE}$, CASE
194	-	DWGTE	$\delta_W \cdot \delta_{TE}$, CASE
195	-	DWGM	$\delta_W \cdot \delta_{MISC}$, CASE
196	TW(74)	VFDTMP	T_{VF}, design temperature at critical flutter condition, GJCAL
197	TGS(73)	VFDG	G_{VF}, material shear modulus at critical flutter condition, GJCAL

TABLE 34. T ARRAY, LOCATIONS 1-200, 489-553 (CONCL)

Array Location	Original Array Location	Variable Name	Description
198	-	-	Not used
199	TMD(6)	CCSHM	K_{ccr}, plate crippling coefficient, MTLCW
200	TMD(7)	CCSFM	K_{ccr}, flange crippling coefficient, MTLCW
Refer to Section 6.0 for locations 201-488 and 522-529.			
489-499	YTB(12-22)	XBP(1-11)	$X_{EA(1-11)}$, X-coordinate for analysis control stations, root to tip
500-510	YTB(1-11)	YBP(1-11)	$Y_{EA(1-11)}$, Y-coordinate for analysis control stations, root to tip
511-521	YS(1-11)	YEA(1-11)	$Y_{A(1-11)}$, analysis control stations, structural reference system, root to tip
530-540	YTB(36-46)	TBD(1-11)	$D_{ave(1-11)}$, average torque-box depth, root to tip
541	YTB(35)	TBD(12)	D_{C-SEC}, center-section average depth
542-552	YTB(24-34)	TBW(1-11)	$W_{(1-11)}$, torque-box width, root to tip
553	YTB(23)	TBW(12)	W_{C-SEC}, center-section width

TABLE 35. TVS ARRAY

General information for array TVS: Blank common reference location = CD(601) Array size = 400 cells	
Array Location	Description
TVS (1-20) are for wing in the reference sweep position, exposed geometry outboard of pivot location.	
1	δ_P', exposed area outboard of pivot, sq ft
2	AR_P', exposed aspect ratio
3	λ_P', exposed taper ratio
4	$(t/c)_P'$, thickness ratio at pivot station
5	$(t/c)_{TIP}$, thickness ratio at tip station
6	Thickness ratio taper
7	C_{RP}', aerodynamic chord at pivot station
8	C_{TIP}, aerodynamic chord at tip station
9	$b_{P/2}'$, exposed semi-span for movable panel
10	$b_{1P/2}$, pivot semi-span
11	S_{PS}', exposed area outboard of pivot, structural system, sq ft
12	AR_{PS}, exposed aspect ratio; structural system
13	λ_{PS}', exposed taper ratio; structural system
14	$(t/c)_{RS}'$, thickness ratio at pivot station, structural system
15	$(t/c)_{TIPS}$, thickness ratio at tip station, structural system
16	Thickness ratio taper, structural system

TABLE 35. TVS ARRAY (CONT)

Array Location	Description
17	C'_{RPS}, structural chord at pivot station
18	C_{TIPS}, structural chord at tip station
19	$b'_{PS/2}$, exposed structural semispan for movable panel
20	blps/2, pivot semi-span, structural system
Locations TVS(21-33) same as T(39-51)	
21	Y_P, Y-coordinate at pivot, name = YPO in subroutine SWPXYP
22	X_P, X-coordinate at pivot, name = XPO in subroutine SWPXYP
23	Y_{AP}, structural reference line station for pivot
24	$(X/C)_{FS}$, equivalent chord element line, front spar, recalculated with swept position data
25	$(X/C)_{RS}$, equivalent chord element line, rear spar, recalculated with swept position data
26	$(X/C)_{EA}$, equivalent chord element line, structural reference line, recalculated with swept position data
27	C_P, aerodynamic chord at pivot station
28	ΔC_P, chordwise distance between the pivot and leading edge
29	X_{LEP}, X-coordinate of leading edge at pivot station
30	Y_{EAP}, Y-coordinate of intersection point of structural reference line and line from pivot normal to structural reference line
31	X_{EAP}, X-coordinate of point previously defined
32	C_{SCP}, X-axis intercept for line from pivot normal to structural reference line

TABLE 35. TVS ARRAY (CONT)

Array Location	Description
33	$X\Lambda_p$, X-coordinate of pivot point in structural reference system
34	$\pm\Delta\Lambda$, delta angle of movable panel between the nominal and swept position, degrees
35	$\pm\Delta\Lambda$, value of location 34 in radians
36	$\text{Tan}\Delta\Lambda$, tangent of delta angle
37	$\text{Sin}\Delta\Lambda$, sine of delta angle, name = SINDL in subroutine SWPXYP
38	$\text{Cos}\Delta\Lambda$, cosin i of delta angle, name = CØSDL in subroutine SWPXYP
39-40	Not used
Locations 41-292 contain calculated data for swept wing geometry. Locations 41-60 are Y- and X-coordinates for indicated nominal chord points in rotated wing position.	
41	Y_{LEP}, Y-coordinate for pivot chord leading edge point
42	Y_{FSP}, Y-coordinate for pivot chord front spar point
43	Y_{EAP}, Y-coordinate for pivot chord structural reference line point
44	Y_{RSP}, Y-coordinate for pivot chord rear spar point
45	Y_{TEP}, Y-coordinate for pivot chord trailing edge point
46	X_{LEP}, X-coordinate for pivot chord leading edge point
47	X_{FSP}, X-coordinate for pivot chord front spar point
48	X_{EAP}, X-coordinate for pivot chord structural reference line point
49	X_{RSP}, X-coordinate for pivot chord rear spar point

TABLE 35. TVS ARRAY (CONT)

Array Location	Description
50	X_{TEP}, X-coordinate for pivot chord trailing edge point
51	Y_{LETIP}, Y-coordinate for tip chord leading edge point
52	Y_{FSTIP}, Y-coordinate for tip chord front spar point
53	Y_{EATIP}, Y-coordinate for tip chord structural reference line point
54	Y_{RSTIP}, Y-coordinate for tip chord rear spar point
55	Y_{TETIP}, Y-coordinate for tip chord trailing edge point
56	X_{LETIP}, X-coordinate for tip chord leading edge point
57	X_{FSTIP}, X-coordinate for tip chord front spar point
58	X_{EATIP}, X-coordinate for tip chord structural reference line point
59	X_{RSTIP}, X-coordinate for tip chord rear spar point
60	X_{TETIP}, X-coordinate for tip chord trailing edge point
61-71	Y_{1-11}, Y-coordinate for the 11 analysis control stations
72-82	X_{1-11}, X-coordinate for the 11 analysis control stations
83	C_{LE}, X-axis intercept for leading edge element line
84	C_{FS}, X-axis intercept for front spar reference line
85	C_{EA}, X-axis intercept for structural reference line
86	C_{RS}, X-axis intercept for rear spar reference line
87	C_{TE}, X-axis intercept for trailing edge reference line
88	C_R, aerodynamic root chord, X-axis intercept for aerodynamic chord variation equation
89	C_{RSC}, structural root chord, X-axis intercept for structural chord variation equation

TABLE 35. TVS ARRAY (CONT)

Array Location	Description
90	$\text{Tan}\,\Lambda_{LE}$, slope of leading edge element line
91	$\text{Tan}\,\Lambda_{FS}$, slope of front spar reference line
92	$\text{Tan}\,\Lambda_{EA}$, slope of structural reference line
93	$\text{Tan}\,\Lambda_{RS}$, slope of rear spar reference line
94	$\text{Tan}\,\Lambda_{TE}$, slope of trailing edge element line
95	Tan AC, slope for aerodynamic chord variation equation
96	Tan AC_S, slope for structural chord variation equation
97	$\text{Sin}\,\Lambda_{LE}$ sine of sweep angle for leading edge element line
98	$\text{Sin}\,\Lambda_{FS}$, sine of sweep angle for front spar reference line
99	$\text{Sin}\,\Lambda_{EA}$, sine of sweep angle for structural reference line
100	$\text{Sin}\,\Lambda_{RS}$, sine of sweep angle for rear spar reference line
101	$\text{Sin}\,\Lambda_{TE}$, sine of sweep angle for trailing edge element line
102	$\text{Cos}\,\Lambda_{LE}$, cosine of sweep angle for leading edge element line
103	$\text{Cos}\,\Lambda_{FS}$, cosine of sweep angle for front spar reference line
104	$\text{Cos}\,\Lambda_{EA}$, cosine of sweep angle for structural reference line
105	$\text{Cos}\,\Lambda_{RS}$, cosine of sweep angle for rear spar reference line
106	$\text{Cos}\,\Lambda_{TE}$, cosine of sweep angle for trailing edge element line
107	b/2, semispan
108	C_{TIP}, aerodynamic tip chord

TABLE 35. TVS ARRAY (CONT)

Array Location	Description
109	X_{LET}, X-coordinate of leading edge at tip station
110	X_{FST}, X-coordinate of front spar at tip station
111	X_{EAT}, X-coordinate of structural reference line at tip station
112	X_{RST}, X-coordinate of rear spar at tip station
113	X_{TET}, X-coordinate of trailing edge at tip station
114	S_G, planform area, swept position, sq ft
115	AR, aspect ratio
116	λ, taper ratio
117	$(t/c)_R$, thickness ratio at centerline
118	$(t/c)_{TIP}$, thickness ratio at tip station
119	Thickness ratio taper
120	C_R, aerodynamic chord at centerline
121	C_{TIP}, aerodynamic chord at tip station
122	b/2, semispan
123	$b_{S/2}$, structural semispan
124	S', exposed area outboard of side of body station, sq ft
125	AR', exposed aspect ratio
126	λ', exposed taper ratio
127	$(t/c)'_R$, thickness ratio at side of body station
128	$(t/c)_{TIP}$, thickness ratio at tip station

TABLE 35. TVS ARRAY (CONT)

Array Location	Description
129	Exposed thickness ratio taper
130	C_R', aerodynamic chord at side of body station
131	C_{TIP}, aerodynamic chord at tip station
132	b'/2, exposed semispan
133	$b_1/2$, side of body station
134	δ_S', exposed area outboard of side of body station, sq ft
135	AR_S', exposed aspect ratio, structural system
136	λ_S', exposed taper ratio, structural system
137	$(t/c)_{RS}'$, thickness ratio at side of body station structural system
138	$(t/c)_{TIPS}$, thickness ratio at tip station, structural system
139	Exposed thickness ratio taper, structural system
140	C_{RS}', structural chord at side of body station
141	C_{TIPS}, structural chord at tip station
142	$b_{S/2}'$, exposed semispan, structural system
143	$b_{1S/2}$, side of body station, structural system
144	Λ_{LE}, sweep of leading edge element line, degrees
145	Λ_{FS}, sweep of front spar reference line, degrees
146	Λ_{EA}, sweep of structural reference line, degrees
147	Λ_{RS}, sweep of rear spar reference line, degrees
148	Λ_{TE}, sweep of trailing edge element line, degrees
149	0.0, not used

TABLE 35. TVS ARRAY (CONT)

Array Location	Description
150	$\Lambda_{0.25C}$, sweep of quarter chord element line, degrees
151	$C_{0.25C}$, X-axis intercept for quarter chord element line
152	$\text{Tan}\,\Lambda_{0.25C}$, slope of quarter chord element line
153	$\text{Sin}\,\Lambda_{0.25C}$, sine of quarter chord sweep angle
154	$\text{Cos}\,\Lambda_{0.25C}$, cosine of quarter chord sweep angle
155	X_{LE1}, X-coordinate of loading edge at side of body
156	X_{FS1}, X-coordinate of front spar at side of body
157	X_{EA1}, X-coordinate of structural reference line at side of body
158	X_{RS1}, X-coordinate of rear spar at side of body
159	X_{TE1}, X-coordinate of trailing edge at side of body
160	X_{LEP}, X-coordinate of leading edge at pivot station
161	X_{FSP}, X-coordinate of front spar at pivot station
162	X_{EAP}, X-coordinate of structural reference line at pivot station
163	X_{RSP}, X-coordinate of rear spar at pivot station
164	X_{TEP}, X-coordinate of trailing edge at pivot station
165	X_{LET}, X-coordinate of leading edge at tip station
166	X_{FST}, X-coordinate of front spar at tip station
167	X_{EAT}, X-coordinate of structural reference line or tip station
168	X_{RST}, X-coordinate of rear spar at tip station
169	X_{TET}, X-coordinate of trailing edge at tip station

TABLE 35. TVS ARRAY (CONT)

Array Location	Description
170-180	$Y_{\Lambda(1-11)}$, structural reference station for 11 analysis control station, root to tip
181-191	$(\Delta Y_\Lambda / Y_\Lambda{}')_{1-11}$, analysis control stations expressed in terms of fraction of exposed span, root to tip
192-202	$C_{(1-11)}$, aerodynamic chord at the analysis control stations, root to tip
203-213	$D_{MAX(1-11)}$, maximum airfoil depth at the analysis control stations, same as YTB(70-80), root to tip
214-224	$(t/c)_{1-11}$, thickness ratio of the analysis control station, root to tip
225-235	$Y_{FS(1-11)}$, Y-coordinate at intersection of the structural chord at each analysis control station and front spar, root to tip
236-246	$X_{FS(1-11)}$, X-coordinate at intersection of structural chord at each analysis
247-257	$Y_{RS(1-11)}$, Y-coordinate at intersection of structural chord at each analysis control station and rear spar, root to tip
258-268	$X_{RS(1-11)}$, X-coordinate at intersection of structural chord at each analysis control station and rear spar, root to tip
269	D_{MAX}, maximum airfoil depth at centerline
270	$D_{MAX\ TIP}$, maximum airfoil depth at tip station
271	$D_{MAX\ b_1/2}$, maximum airfoil depth at side of body station
272	$D_{MAX\ P}$, maximum airfoil depth at pivot station
Locations 273-292 contain planform geometry parameters for wing panel outboard of pivot, aerodynamic for first set and structural for second set.	

TABLE 35. TVS ARRAY (CONT)

Array Location	Description
273	S'_P, exposed area outboard of pivot station, sq ft
274	AR'_P, exposed aspect ratio
275	λ'_P, exposed taper ratio
276	$(t/c)_P$, thickness ratio at pivot station
277	$(t/c)_{TIP}$, thickness ratio at tip station
278	Exposed thickness ratio taper
279	C_P, aerodynamic chord at pivot station
280	C_{TIP}, aerodynamic chord at tip station
281	$b'_{P/2}$, exposed semispan
282	$b_{1P/2}$, pivot semispan
283	S'_{PS}, exposed area outboard of pivot station, structural system sq ft
284	AR'_{PS}, exposed aspect ratio, structural system
285	λ'_{PS}, exposed taper ratio, structural system
286	$(t/c)_{PS}$, thickness ratio at pivot station, structural system
287	$(t/c)_{TIPS}$, thickness ratio at tip station, structural system
288	Exposed thickness ratio taper, structural system
289	C_{PS}, structural chord at pivot station
290	C_{TIPS}, structural chord at tip station
291	$b'_{PS/2}$, exposed structural semispan

TABLE 35. TVS ARRAY (CONT)

Array Location	Description
292	$B_{1PS/2}$, pivot semispan, structural system
293	Not used
Locations 294-312 contain general geometry parameters, factors, and intermediate calculation data computed and saved during calculations for the foregoing data items.	
294	$-1/(\text{Tan}\,\Lambda_{EA})$
295	C_{SC_i}, X-axis intercept for line normal to structural reference line
296	$[-1/(\text{Tan}\,\Lambda_{EA}) - \text{Tan}\,\Lambda_{FS}]$
297	$[-1/(\text{Tan}\,\Lambda_{EA}) - \text{Tan}\,\Lambda_{RS}]$
298	τ, geometric factor, structural to aerodynamic chord ratio
299	$(RS\text{-}FS)\perp$, ratio of front to rear spar distance along the structural chord to the structural chord, based on equivalent chord data for front spar, rear spar, and structural reference line
300	R, geometric factor to compute tangent of an element line sweep angle from tangent of sweep angle of reference line
301	$[1 + (\text{Tan}\,\Lambda_{EA})^2]^{1/2}$
302	$R\ \text{Sin}\,\Lambda_{EA}\ \text{Cos}\,\Lambda_{EA}$
303	C_{SC}', X-axis intercept for line normal to structural reference line at the side of body station.
304	$C_{SC\ TIP}$, X-axis intercept for line normal to structural reference line at tip station
305	Y_{LE_i}, intermediate calculation data

TABLE 35. TVS ARRAY (CONCL)

Array Location	Description
306	Y_{TE_i}, intermediate calculation data
307	Y_{IBGJ}, inboard flutter factor control station, nominal span data required for calculation of corresponding point on swept plan planform
308	$Y_{\phi BGJ}$, outboard flutter factor control station same as above
309	Y_{IBGJ}, inboard flutter factor control station on structural reference line for swept planform
310	$Y_{\phi BGJ}$, outboard flutter factor control station on structural reference line for swept planform
311-312	Intermediate calculation data
313	$X_{0.25C\ b_1/2}$, X-coordinate of quarter chord at side of body station
314	$X_{0.25CP}$, X-coordinate of quarter chord at pivot station
315	$X_{0.25C\ TIP}$, X-coordinate of quarter chord at tip station
316-400	Not used

TABLE 36. TGJ ARRAY, FLUTTER ANALYSIS DATA

General information for array TGJ:
Blank common reference location = T(1761)
Array Size = 200 cells
Array data calculated by subroutines GEØMW and VSGEØM for use by flutter requirement calculation subroutines GJCAL and GJTT in overlay (16,0). Data based on geometry and flutter analysis specifications. Two 100-cell blocks are created as required. 1-100 for fixed panel, wing in nominal position, 101-200 for wing in swept position. Array data stored in record 10, mass storage file 1 by GEØMW and read by GJCAL. Array data printed by GEØMW under control of IP(7).

Array Location	Original Array Location	Name, Subroutine GJCAL	Description
Locations 1-7 contain input data values. The second D array locations are from the optional geometry data set for flutter analysis.			
1	D(240,340)	-	S, area, sq ft
2	D(241,341)	ARG	AR, aspect ratio
3	D(244,342)	-	λ, taper ratio
4	D(242)	-	Λ, sweep
5	D(243,344)	-	t/c, thickness ratio
6	D(245,345)	-	σ, thickness ratio taper
7	D(246,343)	-	b_1, center-section span
8	T(81)	BSØ2	$b_s/2$, structure semispan
9	T(96)	BEXP	$b_1/2$, exposed semispan
10	T(83)	BPSØ2	$b_s'/2$, exposed structural semispan
11	T(15)	BSIØ2	$b_1/2$, side of body station
12	T(89)	CBI	C_R', exposed root chord
13	-	DBI	D_R', average depth at $b_1/2$
14	T(64)	TRP	λ', exposed taper ratio
15	T(63)	TCP	$(t/c)_R'$, thickness ratio at exposed root chord
16	T(65)	SIGP	σ', exposed thickness ratio taper
17	T(14)	TAU	τ, structural chord factor
18	T(71)	RSFS	$(RS-FS)_\perp$, structural box width factor
19	SINØ(3)	SINEA	$\sin \Lambda_{EA}$
20	CØSØ(3)	CØSEA	$\cos \Lambda_{EA}$
21	T(42)	-	$(X/C)_{FS}$, equivalent chord
22	T(43)	-	$(X/C)_{RS}$, equivalent chord
23	T(44)	-	$(X/C)_{EA}$, equivalent chord

TABLE 36. TGJ ARRAY, FLUTTER ANALYSIS DATA (CONT)

Array Location	Original Array Location	Name, Subroutine GJCAL	Description
24	T(13)	AC	Arc centroid of torque box sections
25	SINØ(6)	SINCØ4	Sin $\Lambda_{.25C}$
26	CØSØ(6)	CØSCØ4	Cos $\Lambda_{.25C}$
27-37	T(111-121)	YS(1-11)	Structural reference line distance from tip, root to tip
38-48	T(542-552)	TBW(1-11)	Torque-box width, root to tip
49-59	T(530-540)	TBD(1-11)	Torque-box average depth, root to tip
60-70	T(100-110)	TBCA(1-11)	Aerodynamic chord, trapezoidal planform, root to tip
71	D(252)	VFK	Flutter speed margin
72	D(253)	VFQ	Critical flutter dynamic pressure
73	D(254)	VFG	Material modulus of rigidity at critical flutter condition
74	D(249,259)	VFT	Material temperature at critical flutter condition
75	D(312)	GJFAC	Flutter requirement calibration factor
76	D(313)	GJYI	Inboard control station, flutter factor
77	D(315)	GJYØ	Outboard control station, flutter factor
78-88	T(511-521)	-	Y_{Λ}(1-11), structural station values, analysis control stations
89-99	T(500-510)	-	Y_{EA}(1-11), Y-coordinates, analysis control station
100	-	-	Not used
Data in locations 101-200 created by VSGEØM only if input data locations D(200) and D(320) are not zero.			
101	TVS(114)	-	S, area, sq ft
102	TVS(115)	-	AR, aspect ratio
103	TVS(116)	-	λ, taper ratio
104	TVS(144)	-	Λ, sweep
105	TVS(117)	-	t/c, thickness ratio
106	TVS(119)	-	σ, thickness ratio taper
107	-	-	b_1, center-section span
108	TVS(123)	-	$b_{s/2}$, structural semispan
109	TVS(132)	-	$b_1/2$, exposed semispan
110	TVS(142)	-	$b_s'/2$, exposed structural semispan
111	TVS(133)	-	$b_1/2$, side of body station
112	TVS(130)	-	C_R, exposed root chord

TABLE 36. TGJ ARRAY, FLUTTER ANALYSIS DATA (CONCL)

Array Location	Original Array Location	Name, Subroutine GJCAL	Description
113	TGJ(13)	-	D_R', average depth at $b_1/2$
114	TVS(126)	-	λ', exposed taper ratio
115	TVS(127)	-	$(t/c)_R'$, thickness ratio at exposed root chord
116	TVS(129)	-	σ', exposed thickness ratio taper
117	TVS(298)	-	τ, structural chord factor
118	TVS(299)	-	$(RS-FS)_\perp$, structural box width factor
119	TVS(99)	-	Sin Λ_{EA}
120	TVS(104)	-	Cos Λ_{EA}
121	TVS(24)	-	$(X/C)_{FS}$, equivalent chord
122	TVS(25)	-	$(X/C)_{RS}$, equivalent chord
123	TVS(26)	-	$(X/C)_{EA}$, equivalent chord
124	TGJ(24)	-	Arc centroid of torque-box sections
125	TVS(153)	-	Sin $\Lambda_{.25C}$
126	TVS(154)	-	Cos $\Lambda_{.25C}$
127-137	-	-	Structural reference line distance from tip, root to tip
138-148	YTB(24-34)	-	Torque-box width, root to tip
149-159	YTS(36-46)	-	Torque-box average depth, root to tip
160-170	TVS(192-202)	-	Aerodynamic chord, trapezoidal planform, root to tip
171	D(324)	-	Flutter speed margin
172	D(321)	-	Critical flutter dynamic pressure
173	D(322)	-	Material modulus of rigidity at critical flutter condition
174	D(323,259)	-	Material temperature at critical flutter condition
175	D(312)	-	Flutter requirement calibration factor
176	TVS(309)	-	Inboard control station, flutter factor
177	TVS(310)	-	Outboard control station, flutter factor
178-188	TVS(170-180)	-	Structural station values, analysis control stations
189-199	TVS(61-71)	-	Y-coordinates, analysis control stations
200	-	-	Not used

TABLE 37. TFRDK ARRAY, GEOMETRY ARRAY FOR MASS PROPERTIES CALCULATIONS

General information for array TFRDK:
Blank common reference location = T(1986)
Array size = 60 cells
Array contains front and rear spar depth data for use by overlay (14,0) subroutine LETEI.
Array data is created by subroutine GEØMW, overlay (8,0).

Array Location	Description
1-10	Tan KD_{LE} (1-10), slopes of straight lines passed through adjacent depth values evaluated at a point 0.025 times true aerodynamic chord, aft of true leading edge, on chord at each analysis control station.
11-20	C_{KDLE} (1-10), Z-axis intercepts for corresponding depth variation lines defined by aforemention slopes.
21-30	Tan KD_{FS} (1-10), slopes of straight lines passed through adjacent depth values for airfoil point defined by intersection of front spar reference line and Y-coordinates for analysis control stations.
31-40	C_{KDFS} (1-10), Z-axis intercepts for corresponding depth variation lines defined by aforementioned slopes.
41-50	Tan KD_{RS}(1-10, slopes of stright lines passed through adjacent depth values for airfoil point defined by intersection of rear spar reference line and Y-coordinates for analysis control sections.
51-60	C_{KDRS} (1-10), Z-axis intercepts for corresponding depth variation lines defined by aforementioned slopes.

YC AND YTC ARRAYS, OVERLAY (8,0)

The YC and YTC arrays, Tables 38 and 39, contain computed surface leading edge, trailing edge, airfoil and spanwise depth variation data. True leading and trailing edge position data are derived from input specifications by subroutine GEØMC, organized and stored in array YC for use by subroutine CAERO. Required spanwise depth variation data are computed from thickness ratio specifications and derived true aerodynamic chord data, by subroutine GEØMC, organized and stored in array YTC for use by subroutine DMAX.

YC array locations 1 through 92 and YTC array locations 47 through 60 are used to store data computed by subroutines CAERØ, DMAX, ABØXC, and TBWDC so that pertinent informations commonly available to all subroutines. Data from these arrays are also used by subroutine GCØMP during data processing for printed geometry summary output.

Data contained in arrays YC and YTC are required for geometry computations by subroutine CTØT in overlay (14,0), (15,0), and (17,0). In these overlays subroutine CTØT requires the original information contained in locations 1 through 92 of the overlay (8,0) YC array to be located in locations 41 through 132; YC array locations 1 through 40 are used to store calculated data by subroutine CTØT. Information in locations 1 through 46 of array YTC are used by subroutine CTØT as originally created; locations 47 through 60 are not used.

Overlay (8,0) YC and YTC information is transmitted to overlays (14,0) and (15,0) by the operating system. System features allow for blank common save and initialization when program execution is transferred from one overlay to another. This is accomplished by the BUFFER OUT instruction in the exiting program to save blank common and the BUFFER OUT instruction in the incoming program to reset blank common. Subroutine WLETE in overlay (14,0) rearranges the YC array data for use by subroutine CTØT of overlays (14,0) and (15,0).

Subroutine CASE, overlay (8,0) saves YC array data as originally calculated and YTC array data in locations 1 through 50 on record 144, mass storage file 1, as a 200-cell block. This information is created in overlay (17,0) by subroutine WØDATA for use by subroutine CTØT of that overlay.

TABLE 38. YC ARRAY, OVERLAY (8,0)

General information for array YC:

Blank common reference location = T(201)

Array size = 150 cells

Array data in locations 1 through 92 are created by GEØMC when either linear or non-linear leading edge options are used. Created data sub-set size = number of input control stations plus 1.

Data in locations 1 through 92 are used in overlays (14,0), (15,0) and (17,0) for true aerodynamic and structural chord calculations. The arrangement of data used from this array along with the storage of and data items calculated are different from that of overlay (8,0). Descriptions for array YC used in overlays (14,0), (15,0) and (17,0) can be found in Section V.

Array Location	Description
1-12	$Y_{LE(1-12)}$, Y-coordinates for the up to 11 input control stations used for defining locations of the true planform leading edge. The tip station value is added to the data set.
13-24	$X_{LE(1-12)}$, X-coordinates corresponding to the stations defined in locations 1 through 12. The tip station coordinate is assumed to be for the leading edge element line of the theoretical trapezoidal planform.
25-35	Tan LE(1-11), slope of the straight lines passed through adjacent points defined by the X-, Y-coordinates above.
36-46	$C_{LE(1-11)}$, X-axis intercepts for the straight lines defined by the slopes and X-, Y-coordinates above.
47-58	$Y_{TE(1-12)}$, Y-coordinates for trailing edge, similar to locations 1 through 12 above.
59-70	$X_{TE(1-12)}$, X-coordinate for trailing edge, similar to locations 25 through 24 above.
71-81	Tan TE(1-11), slope of trailing edge lines similar to locations 25 through 35 above.
82-92	$C_{TE(1-11)}$, X-axis intercept for trailing edge lines similar to locations 36 through 46 above.
	Locations 93 through 150 are used to store the data items indicated, calculated during the section geometry analysis at each analysis control station:
93	X_{LE_i}, X-coordinate at the true leading edge for Y_i defined in location 100, CAERØ.

TABLE 38. YC ARRAY, OVERLAY (8,0) (CONT)

Array Location	Description
94	X_{LEO_i}, X-coordinate at the leading edge of the trapezoidal planform for Y_i defined in location 100, CAERØ
95	X_{FS_i}, X-coordinate at the front spar for Y_i defined in location 100, CAERØ
96	X_{EA_i}, X-coordinate at the structural reference line for Y_i defined in location 100, CAERØ
97	X_{RS_i}, X-coordinate at the rear spar for Y_i defined in location 100, CAERØ
98	X_{TEO_i}, X-coordinate at the trailing edge of the trapezoidal planform for Y_i defined in location 100, CAERØ
99	XTEi, X-coordinate at the true trailing edge for Y_i defined in location 100, CAERØ
100	Y_i, Y-coordinate value to be used by subroutine CAERØ to calculate aerodynamic chord data found in locations 93 through 99 and 102 through 106. Set up by ABØXC, GEØMW, GEØMC.
101	X_i, X-coordinate for the analysis point on the plane defined by Y_i above. Set up by ABØXC, GEØMW, GEØMC.
102	C_i, true aerodynamic chord at Y_i, $X_{TE_i}-X_{LE_i}$, CAERØ
103	$(x/c)_i$, fraction of chord above for point defined by Y_i and X_i, $(X_i-X_{LE_i})/C_i$, CAERØ
104	C_o, aerodynamic chord for trapezoidal planform at Y_i, $X_{TEO_i}-X_{LEO_i}$, CAERØ
105	$(X/C_o)_i$, fraction of trapezoidal chord above for point defined by Y_i and X_i, $(Xi-X_{LEOi})/C_{o_i}$, CAERO
106	Intermediate calculation data, CAERØ
107	Intermediate calculation data, GEØMC
108	Intermediate calculation data, GEØMC
109	Intermediate calculation data, GEØMC

TABLE 38. YC ARRAY, OVERLAY (8,0) (CONCL)

Array Location	Description
110	Y_{FS_i}, Y-coordinate at intersection of the structural chord at each analysis control station and the front spar, ABØXC
111	X_{FS_i}, X-coordinate at intersection of the structural chord at each analysis control station and the front spar, ABØXC
112	D_{FS_i}, airfoil depth at the front spar-structural chord intersection point defined in locations 110 and 111, ABØXC
113	Y_{RS_i}, Y-coordinate at intersection of the structural chord at each analysis control station and the rear spar, ABØXC
114	X_{RS_i}, X-coordinate at intersection at the structural chord at each analysis control station and the rear spar, ABØXC
115	D_{RS_i}, airfoil depth at the rear spar-structural chord intersection point defined in locations 113 and 114, ABØXC
116	t/c_{RT}, same value as in TXY(451), GEØMC
117	t/c_{TIP}, same value as in TXY(452), GEØMC
118	Y_{IB}, same value as in TXY(453), GEØMC
119	$Y_{ØB}$, same value as in TXY(454), GEØMC
120	D_{IB}, same value as in TXY(455), GEØMC
121	$D_{ØB}$, same value as in TXY(456), GEØMC
122	D_{RT}, same value as in TXY(457), GEØMC
123	D_{TIP}, same value as in TXY(458), GEØMC
124	Tan D, same value as in TXY(459), GEØMC
125-139	Not used
140	Set to 0.10 by TBWDC to be used by ABØXC to calculate the Section J for an assumed web gage value as indicated.
141	Set to 0.20 by TBWDC to be used by ABØXC to calculate the Section J for an assumed web gage value as indicated.
142	K_{sec}, section average to maximum depth factor, TBWDC
143-150	Not used

TABLE 39. YTC ARRAY

General information for array YTC:
Blank common reference location = T(351)
Array size = 60 cells
Array data locations 1 through 46 are created by GEØMC when either linear or nonlinear depth variation options are used. Created data subset size = number of input control points plus 1.
This array is used in overlays (8,0), (14,0), (15,0), and (17,0). Locations 47 through 60 are used only in overlay (8,0). Subroutine CTØT of overlays (14,0), (15,0), and (17,0) uses array locations 1 through 46 only for maximum airfoil depth calculations.

Array Location	Description
1-12	$Y_{t/c}(1\text{-}12)$, Y-coordinates for the up to 11 input control stations used for defining spanwise thickness ratio variations. The tip station value is added to the data set.
13-24	$D_{max}(1\text{-}12)$, maximum airfoil depth at the control stations defined in locations 1 through 12. The depths are calculated from the input (t/c) specifications and true aerodynamic chords calculated from the leading and trailing edge data sets in array YC. The added tip station depth value is based on data derived from the basic input specifications for thickness ratio distributions, locations 141, 142, 243, and 245 of the variable data block, array D.
25-35	Tan $D_{max}(1\text{-}11)$, slope of the straight lines passed through adjacent maximum depth values of the corresponding Y-coordinates of the data sub-sets in locations 1 through 24.
36-46	$C_{Dmax}(1\text{-}11)$, Z-axis intercepts for corresponding linear depth variation lines defined by the slopes, D_{max} and Y-coordinates above.
	Locations 47 through 60 are used to store the data items indicated, calculated during the section geometry analysis at each analysis control station.
47	Y_i, Y-coordinate of local airfoil depth calculation point by subroutine DMAX, setup by ABØXC, GEØMW, TBWDC
48	X_i, X-coordinate of local airfoil depth calculation point by subroutine DMAX, setup by ABØXC, GEØMW, TBWDC
49	D_i, calculated local depth at coordinates defined by Y_i and X_i above, calculated by DMAX
50	D_{max_i}, maximum depth of airfoil at Y_i above, calculated by DMAX

TABLE 39. YTC ARRAY (CONCL)

Array Location	Description
51	Intermediate calculation data, polynomial airfoil depth equation calculation by DMAX
52	Tan D, same value as in YC(124) and TXY(459), GEØMC
53	D_{RT}, same value as in YC(122) and TXY(457), GEØMC
54	D_{tip}, same value as in YC(123) and TXY(458), GEØMC
55	Intermediate calculation data, delta Y, GEØMC. Changed by DMAX to ratio of average torque-box depth to the maximum depth along the structural width of the torque-box section at each analysis control station. Used by ABØXC.
56	Not used
57	C_i, true aerodynamic chord at coordinates defined by Y_i and X_i above, DMAX.
58	ΔC_i, distance between the coordinate point X_i and the true leading edge point X_{LE_i} on the local airfoil defined by Y_i, $X_i - X_{LE_i}$, DMAX
59	$(X/C)_i$, fraction of chord above for calculation of local depth, $\Delta C/C_i$, DMAX
60	D_{max_i}, maximum depth of structural cross-section of the torque-box at each analysis control station, numerically selected by ABØXC based on calculated values of local depths along the structural width.

OUTPUT DATA ARRAYS TD AND TS

Arrange TD and TS are used by print subroutine PRTG as the data array for printed output of geometry summary data. Array TG data are organized by subroutine GCOMP primarily from data previously computed and stored in arrays TXY, T, and TVS. Table 40 describes the contents of array TD. The original array locations for transferred information are included. Items without original array locations indicated are computed by subroutine GCØMP.

Array TS (Table 41) consists primarily of data processed by subroutine. PRTG from the contents of array TD.

TABLE 40. TD ARRAY, PRINTED OUTPUT GEOMETRY DATA

General information for array TD:
Blank common reference location = CD (1101)
Array size = 600 cells

Array Location	Original Array Location	Description
1	D(242)	Input planform sweep, degrees
2	D(138)	Input planform sweep reference chord
3	D(240)	Input planform area, sq ft
4	D(241)	Input planform aspect ratio
5	D(244)	Input planform taper ratio
6	TXY(451)	t/c_{RT}
7	TXY(452)	t/c_{TIP}
8	-	Thickness ratio taper, TXY(452)/TXY(451)
9	TXY(25)	C_R
10	TXY(10)	C_{TIP}
11	TXY(8)	$b/2$
12	TXY(17)	$b_s/2$
13	TXY(1)	S'
14	TXY(2)	AR'
15	TXY(3)	λ'
16	TXY(4)	$(t/c)'$
17	-	t/c_{TIP}
18	TXY(5)	Exposed thickness ratio tapes
19	TXY(9)	C_R'
20	TXY(10)	C_{TIP}
21	TXY(6)	$b'/2$
22	TXY(7)	$b_1/2$
23	TD(13)	S'
24	TXY(11)	AR'_S, structural system
25	TXY(12)	λ'_S, structural system
26	TXY(13)	$(t/c)'$, structural system
27	-	t/c_{TIP}, structural system
28	TXY(14)	Thickness ratio taper, structural system
29	TXY(18)	$C_R'S$, structural system
30	TXY(19)	C_{TIPS}, structural system
31	TXY(15)	$b_s/2$
32	TXY(16)	$b_{1s}/2$

TABLE 40. TD ARRAY, PRINTED OUTPUT GEOMETRY DATA (CONT)

Array Location	Original Array Location	Description
Locations 33-52 contain swept wing planform geometry data only if variable sweep wing configurations are analysed. This set is initialized to 0.0 by GCOMPT.		
33	TVS(1)	S'_P
34	TVS(2)	AR'_P
35	TVS(3)	λ'_P
36	TVS(4)	$(t/c)'_P$
37	TVS(5)	$(t/c)_{TIP}$
38	TVS(6)	Thickness ratio taper
39	TVS(7)	C'_P
40	TVS(8)	C_{TIP}
41	TVS(9)	$b'_P/2$
42	TVS(10)	$b_{1P}/2$
43	TVS(11)	S'_{PS}, structural system
44	TVS(12)	AR'_{PS}, structural system
45	TVS(13)	λ'_{PS}, structural system
46	TVS(14)	$(t/c)'_{PS}$, structural system
47	TVS(15)	$(t/c)_{TIPS}$, structural system
48	TVS(16)	Thickness ratio taper, structural system
49	TVS(17)	C'_{PS}, structural system
50	TVS(18)	C_{TIPS}, structural system
51	TVS(19)	$b'_{PS}/2$, structural system
52	TVS(20)	$b_{1PS}/2$, structural system
53	TXY(27)	$\text{Tan}\,\Lambda_{LE}$
54	TXY(28)	$\text{Tan}\,\Lambda_{FS}$
55	TXY(29)	$\text{Tan}\,\Lambda_{EA}$
56	TXY(30)	$\text{Tan}\,\Lambda_{RS}$
57	TXY(31)	$\text{Tan}\,\Lambda_{TE}$
58	-	0.0, not used
59	-	$\text{Tan}\,\Lambda_{.25C}$ = (TD(105) - TD(68))/TD(11)
60	TXY(32)	Tan AC
61	TXY(33)	$\text{Tan}\,AC_S$
62	TXY(20)	C_{LE}
63	TXY(21)	C_{FS}
64	TXY(22)	C_{EA}
65	TXY(23)	C_{RS}
66	TXY(24)	C_{TE}
67	-	0.0, not used
68	-	$C_{0.25C}$ = 0.25 · TD(9) + TD(62)
69	TXY(25)	C_R

TABLE 40. TD ARRAY, PRINTED OUTPUT GEOMETRY DATA (CONT)

Array Location	Original Array Location	Description
70	TXY(26)	C_{RS}
71	TXY(34)	$\sin \Lambda_{LE}$
72	TXY(35)	$\sin \Lambda_{FS}$
73	TXY(36)	$\sin \Lambda_{EA}$
74	TXY(37)	$\sin \Lambda_{RS}$
75	TXY(38)	$\sin \Lambda_{TE}$
76	-	0.0, not used
77	-	$\sin \Lambda_{.25c}$ = F (TD(59))
78	TXY(39)	$\cos \Lambda_{LE}$
79	TXY(40)	$\cos \Lambda_{FS}$
80	TXY(41)	$\cos \Lambda_{EA}$
81	TXY(42)	$\cos \Lambda_{RS}$
82	TXY(43)	$\cos \Lambda_{TE}$
83	-	0.0, not used
84	-	$\cos \Lambda_{.25c}$ = F (TD(59))
85	TXY(421)	X_{LE} at $b_1/2$
86	TXY(422)	X_{FS} at $b_1/2$
87	TXY(423)	X_{EA} at $b_1/2$
88	TXY(424)	X_{RS} at $b_1/2$
89	TXY(425)	X_{TE} at $b_1/2$
90	-	0.0, not used
91	-	$X_{.25c}$ at $b_1/2$ = TD (98)
92	TXY(426)	X_{LE} at Y_P
93	TXY(427)	X_{FS} at Y_P
94	TXY(428)	X_{EA} at Y_P
95	TXY(429)	X_{RS} at Y_P
96	TXY(430)	X_{TE} at Y_P
97	-	0.0, not used
98	-	$X_{.25c}$ at Y_P = TD(22) · TD(59) + TD(68)
99	TXY(430)	X_{LE} at b/2
100	TXY(431)	X_{FS} at b/2
101	TXY(432)	X_{EA} at b/2
102	TXY(433)	X_{RS} at b/2
103	TXY(434)	X_{TE} at b/2
104	-	0.0, not used
105	-	$X_{.25c}$ at b/2 = 0.25 · TD(9) + TD(62)
106-134	-	Not used

TABLE 40. TD ARRAY, PRINTED OUTPUT GEOMETRY DATA (CONT)

Array Location	Original Array Location	Description
Locations 135-144 contain planform geometry data for the surface segment between the center-line and analysis control station 1.		
135	-	Area, sq ft
136	-	Aspect ratio
137	-	Taper ratio
138	TD(6)	Inboard thickness ratio
139	TD(263)	Outboard thickness ratio
140	-	Thickness ratio taper
141	TD(9)	Inboard aerodynamic chord
142	TD(161)	Outboard aerodynamic chord
143	TD(208)	Semispan
144	-	Structured semi-span
Locations 145-154 contain planform geometry data for the surface segment between the center-line and analysis control station 11.		
145	-	Area, sq ft
146	-	Aspect ratio
147	-	Taper ratio
148	TD(6)	Inboard thickness ratio
149	TD(273)	Outboard thickness ratio
150	-	Thickness ratio taper
151	TD(9)	Inboard aerodynamic chord
152	TD(171)	Outboard aerodynamic chord
153	TD(218)	Semispan
154	-	Structural semi-span
Locations 155-164 contain planform geometry data for the surface segment between analysis control stations 1 and 11.		
155	-	Area, sq ft
156	-	Aspect ratio
157	-	Taper ratio
158	TD(263)	Inboard thickness ratio
159	TD(273)	Outboard thickness ratio
160	-	Thickness ratio taper
161	-	Inboard aerodynamic chord
162	TD(171)	Outboard aerodynamic chord
163	-	Semispan
164	-	Structural semispan

TABLE 40. TD ARRAY, PRINTED OUTPUT GEOMETRY DATA (CONT)

Array Location	Original Array Location	Description
Locations 165-174 contain planform geometry data for the surface segment between analysis control station 1 and the tip station.		
165	-	Area, sq ft
166	-	Aspect ratio
167	-	Taper ratio
168	TD(273)	Inboard thickness ratio
169	TD(7)	Outboard thickness ratio
170	-	Thickness ratio taper
171	-	Inboard aerodynamic chord
172	TD(10)	Outboard aerodynamic chord
173	-	Semispan
174	-	Structural semispan
175	YC(140)	0.10
176	YC(141)	0.20
177	YC(142)	K_{sec}, average section depth factor
178	YC(143)	0.0, not used
179	YC(144)	0.0, not used
180	YC(145)	0.0, not used
181	YC(146)	0.0, not used
182	YC(147)	0.0, not used
183	YC(148)	0.0, not used
184	YC(149)	0.0, not used
185	YC(150)	0.0, not used
186-207	-	Not used
208-218	TXY(55-65)	Y-coordinates for analysis control stations
219-229	TXY(66-76)	X-coordinates for analysis control stations
230-240	-	Analysis control station locations, fraction of exposed span
241-251	TXY(113-123)	True aerodyanmic chords at analysis control stations
252-262	TXY(124-134)	Maximum depth at analysis control stations
263-273	-	Thickness ratio at analysis control stations
274-284	TXY(490-500)	Structural station values for analysis control stations
285-295	TXY(78-88)	Torque-box width for analysis control stations
296-306	TXY(90-100)	Torque-box average depth for analysis control stations
307-317	TXY(203-213)	Front spar depth for analysis control stations

TABLE 40. TD ARRAY, PRINTED OUTPUT GEOMETRY DATA (CONT)

Array Location	Original Array Location	Description
318-328	TXY(311-321)	Rear spar depth for analysis control stations
329-339	TXY(102-112)	Torque-box cross-sectional area for analysis control stations, sq in.
340-350	-	Torque-box perimeter for analysis control stations
351-361	TXY(178-188)	Y-coordinate at front spar for analysis control stations
362-372	TXY(191-201)	X-coordinate at front spar for analysis control stations
373-383	TXY(214-224)	Average section depth factor for analysis control stations
384-394	TXY(237-247)	Section J for t_{web} = 0.10 for analysis control stations
395-405	TXY(288-298)	Y-coordinate at rear spar for analysis control stations
406-416	TXY(300-310)	X-coordinate at rear spar for analysis control stations
417-427	TXY(323-333)	Torque-box section maximum depth for analysis control stations
428-438	TXY(346-356)	Section J for t_{web} = 0.20 for analysis control stations
439-448	-	Spanwise distance between analysis control stations
449-458	-	Distance between analysis control stations structural system
459-468	-	Spanwise distance between front spar coordinates for analysis control stations
469-478	-	Spanwise distance between rear spar coordinates for analysis control stations
479-488	-	Cumulative sums for torque box panel areas, root to tip, sq ft
489-498	-	Cumulative sums for torque box panel volumes, root to tip, cu ft
499	-	Cumulative sums for total panel access, sq ft
500-509	-	Total area for each structural panel, sq ft
510	-	Cumulative sum for torque-box panel areas, sq ft
511-520	-	Panel area for 10 torque box segments, sq ft
521	-	Cumulative sum for leading edge panel areas, sq ft

TABLE 40. TD ARRAY, PRINTED OUTPUT GEOMETRY DATA (CONCL)

Array Location	Original Array Location	Description
522-531	-	Panel area for 10 leading edge segments, sq ft
532	-	Cumulative sum for trailing edge panel areas, sq ft
533-542	-	Panel area for 10 trailing edge segments, sq ft
543	-	Cumulative sum for torque-box panel volumes, cu ft
544-553	-	Panel volume for 10 torque-box segments, cu ft
554	-	Cumulative sum for leading edge panel volumes, cu ft, not calculated
555-564	-	Panel volume for 10 leading edge segments, cu ft, not calculated
565	-	Cumulative sum for trailing edge panel volumes, cu ft, not calculated
566-575	-	Panel volume for 10 trailing edge segments, cu ft, not calculated
576	-	Not used
577	-	Λ_{LE}, leading edge sweep angle, degrees
578	-	Λ_{FS}, front spar sweep angle, degrees
579	-	Λ_{EA}, structural reference line sweep angle, degrees
580	-	Λ_{RS}, rear spar sweep angle, degrees
581	-	Λ_{TE}, trailing edge sweep angle, degrees
582	-	0.0, not used
583	-	$\Lambda_{.25c}$, quarter chord sweep angle, degrees
584	T(42)	$(X/C)_{FS}$, equivalent chord element line for front spar
585	T(44)	$(X/C)_{EA}$, equivalent chord element line for structural reference line
586	T(43)	$(X/C)_{RS}$, equivalent chord element line for rear spar
587-600	-	Not used

TABLE 41. TS ARRAY

General information for array TS:
Blank common reference location = CD(1)
Array size = 600 cells
Locations 1-88 initially set up by GCØMP, printed by PRTG and subsequently changed by PRTG with data from array TD for printing of torque-box summing data.
Torque-box summary data stored in 11-cell elements for each item in array TD. PRTG records these 11-cell subarray data into 11-station or 16-panel subarrays, each containing appropriate TD array data items.

Array Location	Original Array Location	Description
Locations 1-88 as set up by GCØMP.		
1-11	YTC(1-11)	Y-coordinates for t/c control stations
12-22	DTC(12-22)	Input t/c data, D(2042-2052)
23-33	YTC(13-23)	Maximum airfoil depth at t/c control stations
34-44	YC(1-11)	Y-coordinates for leading edge position control stations
45-55	YC(13-23)	X-coordinates for true position of leading edge
56-66	YC(47-57)	Y-coordinates for trailing edge position control stations
67-77	YC(59-69)	X-coordinates for true position of trailing edge
78-88	YC(140-150)	Miscellaneous data, see YC array map
Location 1-121 as set up by PRTG		
1	TD(208)	Y(1)
2	TD(274)	$Y_{EA}(1)$
3	TD(230)	$\Delta Y/b'/2(1)$
4	TD(241)	C(1)
5	TD(252)	$D_{max}(1)$
6	TD(263)	t/c(1)
7	TD(219)	$X_{EA}(1)$
8	TD(351)	$Y_{ES}(1)$
9	TD(362)	$X_{FS}(1)$
10	TD(395)	$Y_{RS}(1)$
11	TD(406)	$X_{RS}(1)$

TABLE 41. TS ARRAY (CONT)

Array Location	Original Array Location	Description
12-121	-	The foregoing data items for stations 2-11. Location 121 is set at $X_{RS(11)}$ before print of location 1-121. After print, location 121 is set to the value in location 2, $Y_{EA}(1)$
121	TD(274)	$Y_{EA}(1)$
122	TD(285)	W(1)
123	TD(296)	$D_{ave}(1)$
124	TD(307)	$D_{FS}(1)$
125	TD(318)	$D_{RS}(1)$
126	TD(329)	Torque-box section area (1)
127	TD(373)	Section depth factor (1)
128	TD(417)	Section maximum depth (1)
129	TD(340)	Section parameter (1)
130	TD(384)	Section J, t_{web} = 0.10
131	TD(428)	Section J, t_{web} = 0.20
132-241	-	The foregoing data items for station 2-11.
242	TD(499)	Sum for total panel areas
243	TD(510)	Sum for torque-box panel areas
244	TD(521)	Sum for loading edge panel areas
245	TD(532)	Sum for trailing edge panel areas
246	TD(543)	Sum for torque box panel volumes
247	TD(554)	Sum for leading edge panel volumes, not calculated
248	TD(565)	Sum for trailing edge panel volumes, not calculated
249	-	0.0
250	-	0.0
251	-	0.0
252	-	0.0
253	TD(500)	$\Sigma S(1)$
254	TD(511)	$S_{TB}(1)$
255	TD(522)	$S_{LE}(1)$
256	TD(533)	$S_{TE}(1)$
257	TD(544)	$VOL_{TB}(1)$
258	TD(555)	$VOL_{LE}(1)$, not calculated
259	TD(566)	$VOL_{TE}(1)$, not calculated
260	TD(439)	$\Delta Y(1)$
261	TD(449)	$\Delta Y_{\Lambda}(1)$

TABLE 41. TS ARRAY (CONCL)

Array Location	Original Array Location	Description
262	TD(479)	Cumulative sum for torque-box area, outboard to inboard(1)
263	TD(489)	Cumulative sum for torque-box volume, outboard to inboard(1)
264-362	-	Data items in locations 253-263 for panels 2-10.
363-600	-	Not used

SUBROUTINE DESCRIPTIONS

PROGRAM ØLAY8

Deck name:	ØLAY8
Entry name:	ØVERLAY(5HALPHA,8,0)
Called by:	Program ØLAY00
Subroutines called:	CCNTL

Program ØLAY8 is the main overlay (8,0) program. The only function of this routine is to initialize blank common, to execute the overlay subroutines, and to save blank common before the next overlay, (14,0), is loaded into core.

SUBROUTINE CCNTL

Deck name:	CCNTL
Entry name:	CCNTL
Called by:	Program ØLAY8
Subroutine called:	CASE, READMS

Subroutine CCNTL is the first wing and empennage module subroutine to be executed. The primary function of this subroutine is to process module input data, variable data array D, for the surface type to be evaluated. Array D is initialized from the appropriate mass storage record for the problem-records 23, 26, and 27 for the wing horizontal tail and vertical tail, respectively. These records, 2060 data cells, contain the initial SWEEP permanent data bank values for the surface plus the contents of the input variable data blocks for each surface, input data decks WING, HØRIZØNTAL, and VERTICAL.

Subroutine CCNTL then revises the contents of array D with data from the following sources:

1. Array WD, mass storage file 1, record 21, Table 20

2. Array SPAL, mass storage file 1, record 38, Table 21

3. Array XMISC, label common block MISC, Table 5

Data transfer into array D is governed by the original contents of Array D status resulting from the merging of variable data block values into the initial SWEEP permanent data bank values. Specific data items and array D location that may be adjusted by subroutine CCNTL are presented in Table 42. The data source and specific control locations are also listed. Actual transfer of information is made only if the value in the tested cells have been initialized to zero.

Subroutine CCNTL prints the following blocks as printed output data if column 3; case control card 1 is specified with a zero value -- array IP(3):

1. Contents of the D array region affected by the data transfer options, values before the processing operations are executed

2. Contents of array WD

3. Contents of array SPAL

4. Contents of all locations of array D after the data transfer operations have been executed

Subroutine CCNTL initially sets blank common to 0.0 before the foregoing operations are performed. It also initializes locations 1-20, 59, 60, and 85 of array ND with required integer values.

Subroutine CCNTL executes subroutine CASE before returning control to program ØLAY8. Subroutine CASE is executed for processing of general vehicle design data and for computations of surface geometry information.

Subroutine Variables

Table 43 contains the variable referenced by subroutine CCNTL. References to arrays D and T are made by actual location references by this subroutine. References to array SPAL are made as T array references, T(xxxx); T array locations 1001-1050 contains the values found in array SPAL.

Labeled Common Variables

Array IP, labeled common block IPRINT.
Array XMISC, labeled common block MISC.
Array R, XMISC array locations 85-100.

Mass Storage File Records

Reads record 21, array WD
Reads record 23, variable data, wing
Reads record 26, variable data, horizontal tail
Reads record 27, variable data, vertical tail
Reads record 38, array SPAL

Error Messages

None.

TABLE 42. DATA SOURCE MATRIX FOR ADJUSTMENT OF VARIABLE DATA, ARRAY D

Array Location	Test Control Word	Source			Comments
		Wing	Horizontal Tail	Vertical Tail	
81	D(88)	WD(2)	WD(2)	WD(2)	
85	D(88)	WD(4)	WD(4)	WD(4)	
86	D(88)	WD(5)	WD(5)	WD(5)	
87	D(88)	WD(6)	WD(6)	WD(6)	
89	D(88)	WD(103)	WD(103)	WD(103)	
91	D(88)	WD(103)	WD(103)	WD(103)	
93	D(88)	1.0	1.0	1.0	Set to value if D(88) = 0.0 D(88) = 0.0.
94	D(88)	WD(104)	WD(104)	WD(104)	
96	D(88)	WD(104)	WD(104)	WD(104)	
98	D(88)	WD(105)	WD(105)	WD(105)	
100	D(88)	WD(105)	WD(105)	WD(105)	
110	-	1.0	-	0.0	No move for horizontal tail.
138	D(240)	WD(8)	WD(112)	WD(135)	Only if D(242) = 0.0.
144	-	WD(9)	WD(113)	WD(136)	
175	-	0.0	0.0	0.0	
176	-	WD(14)	WD(114)	WD(137)	
177	-	0.0	0.0	0.0	
178	-	0.0	0.0	0.0	
196	-	D(258)	-	-	D(196)-D(203), wing only.
197	-	D(259)	-	-	
199	-	WD(23)	-	-	
200	-	WD(10)	-	-	
201	-	WD(11)	-	-	
202	-	WD(12)	-	-	
203	-	WD(13)	-	-	
204	-	0.0	WD(157)	0.0	
206	D(208)	WD(39)	-	-	D(206)-D(219), wing only.
207	D(208)	WD(40)	-	-	
208	D(208)	WD(102)	-	-	
209	D(208)	WD(37)	-	-	
210	D(208)	WD(36)	-	-	
211	D(208)	WD(20)	-	-	
212	D(208)	WD(38)	-	-	
213	D(215)	WD(44)	-	-	
214	D(215)	WD(45)	-	-	
215	D(215)	WD(102)	-	-	
216	D(215)	WD(42)	-	-	

TABLE 42. DATA SOURCE MATRIX FOR ADJUSTMENT OF VARIABLE DATA, ARRAY D (CONT)

Array Location	Test Control Word	Source			Comments
		Wing	Horizontal Tail	Vertical Tail	
217	D(215)	WD(41)	-	-	
218	D(215)	WD(20)	-	-	
219	D(215)	WD(43)	-	-	
239	-	WD(7)	WD(111)	WD(134)	
240	D(240)	WD(15)	WD(115)	WD(138)	
241	D(240)	WD(16)	WD(116)	WD(139)	
242	D(240)	WD(17)	WD(117)	WD(140)	
243	D(240)	WD(161)	WD(165)	WD(169)	
244	D(240)	WD(18)	WD(118)	WD(141)	
245	D(240)	WD(162)	WD(168)	WD(170)	
246	D(240)	WD(19)	WD(119)	WD(142)	
247	D(240)	WD(159)	WD(163)	WD(167)	
248	D(240)	WD(160)	WD(164)	WD(168)	
253	-	XMISC(5)	XMISC(6)	XMISC(7)	For wing, fixed wing configurations only.
253	D(200), WD(10)	SPAL(44)	N/A	N/A	For wing only variable sweep configurations only, and if pivot design specified. Double test, D(200) or WD(10) not 0.0.
254	-	XMISC(28)	XMISC(29)	XMISC(30)	For wing, fixed wing configurations only.
254	D(200), WD(10)	SPAL(45)	N/A	N/A	In wing only variable sweep configurations only and if pivot design specified. Double test D(200) or WD(10) not 0.0.
259	-	XMISC(8)	XMISC(9)	XMISC(10)	
282	-	SPAL(46)	SPAL(47)	SPAL(48)	For wing, fixed wing configurations only.
282	D(200), WD(10)	SPAL(43)	N/A	N/A	For wing only, variable sweep configurations only and if pivot design specified. Double test, D(200) or WD(10) not 0.0.
289	-	0.0	-	WD(158)	No move for horizontal tail
310	D(357)	0.0	0.0	SPAL (12)	T-tail vertical tail only, no test for conventional vertical

TABLE 42. DATA SOURCE MATRIX FOR ADJUSTMENT OF VARIABLE DATA, ARRAY D (CONT)

Array Location	Test Control Word	Source			Comments
		Wing	Horizontal Tail	Vertical Tail	
320	D(200), WD(10)	XMISC(13) -XMISC(26)	-	-	For wing only, variable sweep configurations only and if pivot design specified. Double test, D(200) or WD(10) not 0.0.
321	D(200), WD(10)	XMISC(5)	-	-	Same as D(320).
322	D(200), WD(10)	XMISC(28)	-	-	Same as D(320).
323	D(200), WD(10)	SPAL(46)	-	-	Same as D(320).
335	D(357)	-	-	SPAL(49)	T-tail vertical tail only. No test for conventive vertical.
337	D(357)	0.0	0.0	SPAL(9)	Same as D(335).
338	D(357)	0.0	0.0	SPAL(10)	Same as D(335).
339	D(357)	0.0	0.0	SPAL(11)	Same as D(335).
357	-	0.0	0.0	-	No test for vertical tail.
358	D(357)	0.0	0.0	SPAL(5)	Same as D(335).
359	D(357)	0.0	0.0	SPAL(6)	Same as D(335).
360	D(357)	-	-	SPAL(7)	Same as D(335).
864	D(865)	2.0	2.0	2.0	
865	D(865)	WD(25)	WD(123)	WD(146)	
-866		-WD(35)	-WD(133)	-WD(156)	
1280	D(88)	WD(106)	WD(106)	WD(106)	
1820	-	WD(22)	WD(121)	WD(144)	
1821	-	WD(21)	WD(120)	WD(143)	
1822	D(1823)	D(246)/2.0	D(246)/2.0	D(246)/2.0	Always if D(1823) = 0.0.
1823	D(1823)	1.0	1.0	1.0	Always if D(1823) = 0.0.
1824	D(1823)	D(127)	D(127)	D(127)	Always if D(1823) = 0.0.
1825	D(1823)	D(127)	D(127)	D(127)	Always if D(1823) = 0.0.
1826	D(1823)	0.0	0.0	0.0	Always if D(1823) = 0.0.
1827	D(1823)	0.50	0.50	0.50	Always if D(1823) = 0.0.
1855	D(1856)	WD(70)	0.0	0.0	Positive if D(1860)-D(1865) not 0.0; negative if 0.0.
1856	D(1856)	-WD(71)	0.0	0.0	
1857	D(1856)	WD(72)	0.0	0.0	

TABLE 42. DATA SOURCE MATRIX FOR ADJUSTMENT OF VARIABLE DATA, ARRAY D (CONCL)

Array Location	Test Control Word	Source			Comments
		Wing	Horizontal Tail	Vertical Tail	
1867	D(1868)	WD(78)	0.0	0.0	Positive if D(1872)-D(1877) not 0.0; negative if 0.0.
1868	D(1868)	-WD(79)	0.0	0.0	
1869	D(1868)	WD(80)	0.0	0.0	
1879	D(1880)	WD(86)	0.0	0.0	Positive if D(1884)-1889) not 0.0; negative if 0.0.
1880	D(1880)	-WD(87)	0.0	0.0	
1881	D(1880)	WD(88)	0.0	0.0	
1891	D(1892)	WD(94)	0.0	0.0	Positive if D(1896)-D(1901) not 0.0; negative if 0.0.
1892	D(1892)	-WD(95)	0.0	0.0	
1893	D(1892)	WD(96)	0.0	0.0	
1903	D(1904)	WD(46)	0.0	0.0	
1904	D(1904)	-WD(47)	0.0	0.0	
1905	D(1904)	WD(48)	0.0	0.0	
1906	D(1904)	WD(49)	0.0	0.0	
1907	D(1904)	0.0	0.0	0.0	
1908	D(1904)	WD(51)	0.0	0.0	
1909	D(1904)	WD(52)	0.0	0.0	
1910	D(1904)	WD(53)	0.0	0.0	
1915	D(1916)	WD(54)	0.0	0.0	
1916	D(1916)	-WD(55)	0.0	0.0	
1917	D(1916)	WD(56)	0.0	0.0	
1918	D(1916)	WD(57)	0.0	0.0	
1919	D(1916)	WD(58)	0.0	0.0	
1920	D(1916)	WD(59)	0.0	0.0	
1921	D(1916)	WD(60)	0.0	0.0	
1922	D(1916)	WD(61)	0.0	0.0	
1927	D(1928)	WD(62)	0.0	0.0	Positive if D(1932)-D(1937) not 0.0; negative if 0.0.
1928	D(1928)	WD(63)	0.0	0.0	
1929	D(1928)	WD(63)	0.0	0.0	

TABLE 43. VARIABLE REFERENCES, SUBROUTINE CONTL

Variable Name	Size (Cells)	Common Ref Loc	Variable Description			Table Ref
			Type	Used	Calc	
D	2,060	2061	R	U	C	3,8,11,12
IP	80	/IPRINT/	I	U	-	7
NCASE	1	ND(60)	I	-	C	9,13
ND	100	6121	I	U	C	3,9,13
NMATL	1	ND(59)	I	-	C	9,13
NPAGE	1	ND(85)	I	-	C	9,13
R	16	XMISC(85)	A	U	-	6
T	2,060	1	R	U	C	3
WD	200	T(1)	R	U	C	20
XMISC	100	/MISC/	R,A	U	-	6

SUBROUTINE CASE

Deck name: CASE
Entry name: CASE
Called by: Subroutine CCNTL
Subroutine called: GEØMW, WRITMS

Subroutine CASE is the first analysis subroutine of the wing and empennage module to be executed. This subroutine performs the following computations:

1. Processes total vehicle and design fuel data.

2. Computes values for the four basic flight design weights located in array D locations 102-105, array DGWI, and variable DGWØ.

3. Determines proper code values for control codes LID and WHVID.

4. Processes design load factor and dynamic pressure data.

5. Executes the geometry calculation subroutine through subroutine GEØMW.

6. Saves the contents of array YC on record 144, mass storage file 1 for later use by overlay (17,0).

7. Processes general weight factors into array T, locations 177-195.

Subroutine CASE tests the input values of the general surface and component weight factors. This test is for zero values; any zero value are set to 1.0 so that valid calculated weight information will result from downstream computations.

Subroutine Variables

Named variables referenced by subroutine CASE are identified in Table 44. The calculated variables from this subroutine are all necessary for downstream computations. Computed values are not revised by other subroutines.

Labeled Common Variables

None.

Mass Storage File Records

Writes record 144, array YC.

Error Messages

None.

TABLE 44. VARIABLE REFERENCES, SUBROUTINE CASE

Variable Name	Size (Cells)	Common Ref Loc	Variable Description			Table Ref
			Type	Used	Calc	
D	2,060	2061	R	U	C	3,8,11,12
DC	100	D(1401)	R	U	-	10,14
DELLE	1	T(189)	R	U	C	34
DELTE	1	T(190)	R	U	C	34
DELWG	1	T(187)	R	U	C	34
DFUEL	1	D(93)	R	U	-	8,11,12
DGWI	4	D(102)	R	-	C	8,11,12
DGWØ	1	D(105)	R	-	C	8,11,12
DHVID	1	D(289)	R	U	-	8,11,12
DLDID	1	D(686)	R	U	-	8,11,12
DLFL	4	D(94)	R	U	C	8,11,12
DLLG	1	D(601)	R	U	-	8,11,12
DLMS	1	D(603)	R	U	-	8,11,12
DLPNL	10	T(195)	R	-	C	34
DLTB	30	D(600)	R	U	-	8,11,12
DLTBX	1	T(188)	R	U	C	34
DLTE	1	D(602)	R	U	-	8,11,12
DLUL	4	D(98)	R	U	-	8,11,12
DLWG	1	D(250)	R	U	-	8,11,12
DMISC	1	T(191)	R	U	C	34
DPNZ	2	T(20)	R	-	C	34
DQVL	1	D(287)	R	-	C	8,11,12
DTBX	32	D(1088)	R	U	-	8,11,12
DWGLE	1	T(193)	R	-	C	34
DWGM	1	T(195)	R	U	C	34
DWGTB	1	T(192)	R	-	C	34
DWGTE	1	T(194)	R	-	C	34
GPNZ	2	T(18)	R	-	C	34
I	1	ND(26)	I	U	C	9,13
LID	1	ND(54)	I	U	C	9,13
ND	100	6121	I	U	-	3,9,13
QVL	1	D(87)	R	U	-	8,11,12
T	2,060	1	R	U	C	3,34
TØFL	4	D(89)	R	U	C	8,11,12
TØGW	3	D(80)	R	U	-	8,11,12
TØGWØ	1	D(88)	R	U	-	8,11,12
ULTLF	1	D(122)	R	U	-	8,11,12
UPNZ	2	D(285)	R	-	C	8,11,12
WHVID	1	T(57)	R	-	C	34
YC	150	T(201)	R	U	-	38
ZPNZ	2	D(85)	R	U	-	8,11,12

SUBROUTINE GEØMW

Deck name: GEØMW
Entry name: GEØMW
Called by: Subroutine CASE
Subroutines called: ABØXC, CAERØ, DMAX, GEØMC, PRTG, TBWDC, VSGEØM

Subroutine GEØMW is the basic geometry calculation and analysis control routine. This subroutine governs the execution of all geometry analysis routines of overlay (8,0). Data computed by subroutine GEØMW are stored in the overlay (8,0) output arrays TXY, T, TGJ, TFRDK, YC, and YTC. Input data for subroutine analysis are all contained in array D. Mass storage file 1, record 36, is used to initialize the contents of array DAF, airfoil cross-section data array.

Data contained in arrays TXY, T, TFRDK, YC, and YTC are used by overlays (14,0), (15,0), and (16,0). These array data are transmitted to the downstream array as blank common data. Array TGJ information is used by subroutine GJCAL, overlay (16,0). TGJ data are transmitted to overlay (16,0) through record 10, mass storage file 1.

The sequential order of computations by GEØMW is as follows:

1. Initialize array DAF from record 36, mass storage file 1. Create array AFD data from DAF, based on the input value of airfoil type code AFID, D(143).

2. Compute surface planform geometry data stored in array TXY.

3. Execute subroutine GEØMC to create data required in arrays YC, YTC, and TAF.

4. Execute subroutine TBWDC to create detail geometry parameters associated with the 11 analysis control stations.

5. Create array TFRDK data (Table 37) for use in overlay (14,0).

6. Execute subroutine VSGEØM to create data for arrays TVS and TGJ, as required.

7. Execute subroutine PRTG for output print of geometry summary data. This execution is governed by the code value specified in column 6, case control card 1, IP(6).

8. Create required array T data (Table 34).

9. Create required design data for array TGJ, locations 1-100 (Table 36). Save TGJ data on record 10, mass storage file 1.

10. Print contents of arrays TGJ and TT, based on code value of column 7, case control card 1, IP(7).

Subroutine GEØMW uses array TT for storage and retrieval of data during computations for the preceding items 2, 5, 8, and 9. Table 45 contains the definitions for TT array locations used in these calculations.

The data items stored in T(42), T(43), and T(44), equivalent chord element line values for the front spar, rear spar, and structural reference line locations, are computed for use by the flutter requirements analysis subroutines. The empirical equations used for flutter requirement estimation are based on the assumption that the spar and bending/torsional reference line for the structural box are located on constant element lines. Input specifications allow the user to locate these reference lines off element lines. The values in T(42), T(43), and T(44) are derived based on the following assumptions:

1. Front spar location; T(42). The equivalent element line is the chord position that will result in a leading edge area forward of the front spar between structural reference stations 1 and 11 and equal to the leading edge area defined by the true front spar reference line.

2. Rear spar location; T(43). Similar to the assumptions for the front spar, except that the area is that part aft of the rear spar.

3. Structural reference line location; T(44). The equivalent structural reference position is the element line with the same sweep angle as the true structural reference line.

The flutter requirement equations also assume constant taper planforms and structural torque-box cross sections. Thus, for surface designs with blended leading edges, cranked trailing edges, or nonlinear spanwise depth variations, flutter analysis geometry parameters must be recomputed based on linear approximations for aerodynamic chords and torque-box depths. Variable-data item GJS, D(340), is used at the control code to initiate these computations. The aerodynamic chord values, TGJ(60) through TGJ(70), are based on theoretical planform chords. Depth variations are based on input data values for thickness ratio, (t/c), and taper, σ. Input data values in D(344), GJTC, and D(345), GJSIG, are used if nonzero values are input. If zero values are specified for these items, the data in D(243), TCIB, and D(245), WSIG, are used.

Subroutine Variables

Table 46 contains the variables referenced by subroutine GEMMW.

Labeled Common Variables

Array IP, labeled common block IPRINT.

Mass Storage File Records

Reads record 36, array DAF, airfoil cross-section data.

Writes record 10, array TGJ, flutter requirement analysis data.

Error Messages

None.

TABLE 45. TT ARRAY, GEØMV

General information for array TT:

Blank common reference location = T(1317)

Array size = 20 cells

Array contains miscellaneous intermediate calculation data. Definitions found in the following are for the following computations:

- Column 1. Equation constants for front spar, structural and rear spar reference lines, TXY(21) - TXY(23) and TXY(28) - TXY(30).
- Column 2. Structural chord values in TXY(18), TXY(19), and TXY(26).
- Column 3. TFRDK array data.
- Column 4. Revised theoretical trapezoidal geometry data for flutter analysis, TGJ array data, when analysis control code GJS, D(340), is specified as a nonzero positive value (theoretical Planform area for flutter analysis).
- Column 5. Equivalent chord element line values in T(42) - T(44).

Array Location	1	2	3	4	5
1	Y_{IB}	$\text{Tan}\,\Lambda_{LE} - \frac{1}{\text{Tan}\,\Lambda_{EA}}$	C_i	b/2	Y_1
2	$Y_{ØB}$	$\text{Tan}\,\Lambda_{TE} - \frac{-1}{\text{Tan}\,\Lambda_{EA}}$	$X_{LE_i} + 0.025C_i$	C_R	Y_{11}
3	C_{IB}	$C_{SC_i} - C_{LE}$	X_{FS}	C_{TIP}	X_{LE1}
4	C_{OB}	$C_{SC_i} - C_{TE}$	X_{RS}	Tan AC	X_{LE11}
5	X_{LEIB}	Y_{LEi}	d_{LEi}	$\frac{4\,(1-\lambda)}{AR(1+\lambda)}$	X_{FS1}

TABLE 45. TT ARRAY, GEØMW (CONCL)

Array Location	1	2	3	4	5
6	X_{LE0B}	Y_{TEi}	d_{FSi}	$R(\text{Sin}\Lambda_{EA})^{\bullet}$ $(\text{Cos}\Lambda_{EA})$	X_{FS11}
7	X_{FSIB}	X_{LEi}	d_{RSi}	$D_{MAX\ C\text{-}L}$	X_{RS1}
8	X_{EAIB}	X_{TEi}	d_{LEi-1}	$D_{MAX\ TIP}$	X_{RS11}
9	X_{RSIB}	C_{SCi}	d_{FSi-1}	D'_{MAX}	$C_1 + C_{11}$
10	X_{FSOB}	-	d_{RSi-1}	$D_{ave\ C\text{-}L}$	C_1
11	X_{EAOB}	-	$Y_i - Y_{i-1}$	$D_{ave\ TIP}$	C_{11}
12	X_{RSOB}	-	-	Tan D_{ave}	-
13	ΔY	-	-	-	-
14-20	-	-	-	-	-

TABLE 46. VARIABLE REFERENCES, SUBROUTINE GEØMW

Variable Name	Size (Cells)	Common Ref Loc	Variable Description			Table Ref
			Type	Used	Calc	
AC	1	T(13)	R	U	C	34
AFD	6	T(411)	R	U	C	28
AFID	1	D(143)	R	U	-	8,11,12
BØ2	1	T(12)	R	-	C	34
BSØ2	1	T(81)	R	U	C	34
BS1Ø2	1	T(15)	R	U	C	34
CCLDH	1	T(91)	R	-	C	34
CCLDX	1	T(88)	R	-	C	34
CCLØ	9	T(131)	R	U	C	34
CCL5	1	T(90)	R	U	C	34
CMACP	1	T(55)	R	-	C	34
CØSØ	6	T(146)	R	-	C	34
CØTEA	1	T(152)	R	U	C	34
D	2,060	2060	R	U	-	3,8,11,12
DAF	500	T(1401)	R	U	C	25
DC	100	D(1401)	R	U	-	10,14
DLLMDA	1	D(320)	R	U	-	8,11,12
DMACP	1	T(56)	R	-	C	34
DMTI	1	D(259)	R	U	-	8,11,12
DSFUS	1	D(246)	R	U	-	8,11,12
DTMPGJ	1	D(282)	R	U	-	8,11,12
GJAR	1	D(341)	R	U	-	8,11,12
GJBI	1	D(343)	R	U	-	8,11,12
GJFAC	1	D(312)	R	U	-	8,11,12
GJS	1	D(340)	R	U	-	8,11,12
GJSIG	1	D(345)	R	U	-	8,11,12
GJTC	1	D(344)	R	U	-	8,11,12
GJTR	1	D(342)	R	U	-	8,11,12
GJYI	1	D(313)	R	U	-	8,11,12
GJYØ	1	D(315)	R	U	-	8,11,12
I	1	-	I	U	C	-
IP	80	/IPRINT/	I	U	-	7
J	1	-	I	U	C	-
M	1	-	I	U	C	-
N	1	ND(30)	I	U	C	9,13
ND	100	6121	I	U	-	3,9,13
SINØ	6	T(140)	R	U	C	34
SWPPC	1	D(138)	R	U	-	8,11,12
T	2,060	1	R	U	C	3,34
TANDH	1	T(90)	R	-	C	34

TABLE 46. VARIABLE REFERENCES, SUBROUTINE GEØMW (CONT)

Variable Name	Size (Cells)	Common Ref Loc	Variable Description			Table Ref
			Type	Used	Calc	
TANDX	1	T(87)	R	-	C	34
TANØ	9	T(122)	R	U	C	34
TANS	1	T(92)	R	U	C	34
TBCA	11	T(100)	R	-	C	34
TBD	11	T(530)	R	-	C	34
TBFS	12	T(153)	R	-	C	34
TBIBX	3	D(125)	R	U	-	8,11,12
TBØBX	3	D(135)	R	U	-	8,11,12
TBRS	12	T(165)	R	-	C	34
TBW	11	T(542)	R	-	C	34
TBYIB	1	D(128)	R	U	-	8,11,12
TBYØB	1	D(129)	R	U	-	8,11,12
TCIB	1	D(243)	R	U	C	8,11,12
TFRDK	60	T(1986)	R	U	C	37
TGJ	200	T(1761)	R	U	C	36
TT	20	T(1317)	R	U	C	45
TXY	500	T(801)	R	U	C	30
VFG	1	D(253)	R	U	-	8,11,12
VFK	1	D(252)	R	U	-	8,11,12
VFQ	1	D(254)	R	U	-	8,11,12
WAR	1	D(241)	R	U	-	8,11,12
WAREA	1	D(240)	R	U	-	8,11,12
WCREF	1	D(177)	R	U	-	8,11,12
WDIII	1	D(247)	R	U	-	8,11,12
WEREF	1	D(178)	R	U	-	8,11,12
WHVID	1	T(57)	R	U	-	34
WSIG	1	D(245)	R	U	-	8,11,12
WSWP	1	D(242)	R	U	-	8,11,12
WTR	1	D(243)	R	U	-	8,11,12
WXREF	1	D(176)	R	U	-	8,11,12
WYREF	1	D(175)	R	U	-	8,11,12
XBP	11	T(489)	R	U	C	34
XMACP	1	T(54)	R	U	C	34
YBP	11	T(500)	R	U	C	34
YC	150	T(201)	R	U	C	38
YEA	11	T(511)	R	U	C	34
YIBTC	1	D(141)	R	U	-	8,11,12
YLE	109	TXY(179)	R	U	-	32,30
YMACP	1	T(53)	R	U	C	34
YØBTC	1	D(142)	R	U	-	8,11,12

TABLE 46. VARIABLE REFERENCES, SUBROUTINE GEØMW (CONCL)

Variable Name	Size (Cells)	Common Ref Loc	Variable Description			Table Ref
			Type	Used	Calc	
YRT	11	T(111)	R	-	C	34
YS	11	TXY(490)	R	U	-	30
YTB	124	TXY(55)	R	U	-	31,30
YTC	60	T(351)	R	U	C	39
YTE	109	TXY(288)	R	U	-	33,30
ZDIH	1	D(248)	R	U	-	8,11,12

SUBROUTINE GEØMC

Deck name:	GEØMC
Entry name:	GEØMC
Called by:	Subroutine GEØMW
Subroutines called:	CAERØ

Subroutine GEØMC processes input variable date defining (1) the true positions of the surface leading and trailing edges, (2) the spanwise variations of airfoil maximum depths, and (3) the reference airfoil cross sections and locations, if required.

This subroutine is used to process data contained in arrays DLE, DTE, and DTC, (Tables 22 through 24) to create the required information for arrays YC and YTC (Tables 38 and 39). Array YC and YTC are used by subroutines CAERØ and DMAX to compute local chord and maximum thickness values at any spanwise station Y_i.

Airfoil cross section and location information contained in arrays AFN and YAF are processed only if the airfoil type control code AF1D, location D(143), is specified as 9.0. Data in array TAF (Table 29) is created based on these input array specifications. Airfoil cross-sectional data stored in array DAF (Table 25) are used to create normalized airfoil ordinate table data in array TAF. Array TAF is used by subroutine DMAX during the linear interpolation computations for airfoil depths at any point on the surface planform, defined by coordinates (Y_i, X_i). The reference (x/c) values for the ordinate table data are moved to locations 1-48 of array DAF for use by subroutine DMAX. The code word containing the number of airfoil ordinate points, NAF, is created from the value in DAF (100).

Subroutine GEØMC prints the contents of array TAF under control of column 4, case control card 1, IP(4), only if data for this array is processed. Arrays YC and YTC are always printed under control of IP(4).

Subroutine Variables

Variables referenced by subroutine GEØMC are listed in Table 47. The primary output of this subroutine is the contents of arrays TAF, YC, and YTC and the value in code word NAF.

Labeled Common Variables

Array IP, labeled common block IPRINT.

Mass Storage File Records

None.

Error Messages

None.

TABLE 47. VARIABLE REFERENCES, SUBROUTINE GEØMC

Variable Name	Size (Cells)	Common Ref Loc	Variable Description			Table Ref
			Type	Used	Calc	
AFID	1	D(143)	R	U	-	8,11,12
AFN	4	D(149)	R	U	-	8,11,12
D	2,060	2061	R	U	-	3,8,11,12
DAF	500	T(1401)	R	U	C	25
DC	100	D(1401)	R	U	-	10,14
DLE	23	D(1985)	R	U	-	22,11,12
DTC	22	D(2031)	R	U	-	24,11,12
DTE	23	D(2008)	R	U	-	23,11,12
I	1	-	I	U	C	-
IP	80	/IPRINT/	I	U	-	7
I1	1	-	I	U	C	-
I2	1	-	I	U	C	-
I3	1	-	I	U	C	-
J	1	-	I	U	C	-
K	1	-	I	U	C	-
L	1	-	I	U	C	-
M	1	-	I	U	C	-
N	1	-	I	U	C	-
NAF	1	ND(67)	I	-	C	9,13
ND	100	6121	I	U	-	3,9,13
T	2,060	1	R	U	-	3
TAF	350	T(431)	R	U	C	29
TXY	500	T(801)	R	U	-	30
YAF	4	D(145)	R	U	-	8,11,12
YC	150	T(201)	R	U	C	38
YTC	60	T(351)	R	U	C	39

SUBROUTINE VSGEØM

Deck Name: VSGEØM
Entry Name: VSGEØM
Called by: Subroutine GEØMW
Subroutines called: SWPXYP.

Subroutine VSGEØM is the geometry analysis routine that computes swept wing planform data. This subroutine is always executed by subroutine GEØMW. However, VSGEØM calculations are only made if two input control data are specified as nonzero numbers; i.e., DYPVT, location D(200), and DLLMDA, location D(320). Subroutine VSGEØM creates array TVS data (Table 35), the pivot information stored in T(39) through T(51) (Table 34), and the flutter requirement analysis data in locations 101 through 200 of array TGJ (Table 36).

The swept planform for which VSGEØM computations are made is for the movable wing position that is critical for flutter. The position is specified in location D(320), DLLMDA. DLLMDA is treated as the angular sweep increment (negative or positive, but not zero) from the reference theoretical position. Values for the general planform geometry parameters found in array TXY are computed and stored in array TVS. Pertinent swept position coordinates are computed by subroutine SWPXYP. The theoretical planform parameters, S, AR, and λ, are based on the computed theoretical root chord, tip chord, and semi-span. The semispan for the swept station, TVS(107), is assumed to be the swept position Y-coordinate of the intersection point of the structural reference line and the tip chord, TXY(8), TXY(433). The theoretical root and tip chords are determined as the chordwise distance between the 0- and 100-percent chord element lines in the swept position.

The flutter analysis data in array TGJ are based on information stored in arrays TVS, YTB, and the variable input data array D. Initial clear for array TGJ is made by subroutine VSGEØM.

The contents of array TVS is printed by subroutine VSGEØM under control of column 7, case control card 1, IP(7).

Subroutine Variables

Variables referenced by subroutine VSGEØM are listed in Table 48. The primary input variables are stored in arrays TXY and D.

Labeled Common Variables

Array IP, labeled common block IPRINT.

Mass Storage File Records

None.

Error Messages

None.

TABLE 48. VARIABLE REFERENCES, SUBROUTINE VSGEØM

Variable Name	Size (Cells)	Common Ref Loc	Variable Description			Table Ref
			Type	Used	Calc	
CD	2,000	4121	R	U	-	3
D	2,060	2061	R	U	-	3,8,11,12
DC	100	D(1401)	R	U	-	10,14
DKLMDA	1	D(324)	R	U	-	8,11,12
DLLMDA	1	D(320)	R	U	-	8,11,12
DMTI	1	D(259)	R	U	-	8,11,12
DXPVT	1	D(201)	R	U	-	8,11,12
DYPVT	1	D(200)	R	U	-	8,11,12
GJB1	1	D(343)	R	U	-	8,11,12
GJFAC	1	D(312)	R	U	-	8,11,12
GJS	1	D(340)	R	U	-	8,11,12
GJYI	1	D(313)	R	U	-	8,11,12
GJYØ	1	D(315)	R	U	-	8,11,12
GLMDA	1	D(322)	R	U	-	8,11,12
I	1	-	I	U	C	-
IP	80	/IPRINT/	I	U	-	7
J	1	-	I	U	C	-
N	1	-	I	U	C	-
ND	100	6121	I	U	-	3,9,13
QLMDA	1	D(321)	R	U	-	8,11,12
T	2,060	1	R	U	C	3
TGJ	200	T(1761)	R	U	C	36
TLMDA	1	D(323)	R	U	-	8,11,12
TVS	400	CD(601)	R	U	C	35
TXY	500	T(801)	R	U	C	30
XEA	11	YTB(12)	R	U	-	31,30
YEA	11	YTB(1)	R	U	-	31,30
YTB	124	TXY(55)	R	U	-	31,30

SUBROUTINE TBWDC

Deck name:	TBWDC
Entry name:	TBWDC
Called by:	Subroutine GEØMW
Subroutines called:	ABØXC, DMAX

Subroutine TBWDC is the geometry analysis routine used to compute the structural station and panel data contained in subarrays YTB, YLE and YTE of array TXY (Tables 31 through 33). Required torque-box data used by other analysis routines are as follows:

1. Structural analysis control station coordinates, $Y_{\Lambda 1\text{-}11}$, $Y_{1\text{-}11}$, and $X_{1\text{-}11}$.
2. Structural chord of torque-box at each control station, $W_{1\text{-}11}$
3. Average section depth at each control station, $D_{ave\ 1\text{-}11}$
4. True aerodynamic chord at each control station, $C_{1\text{-}11}$
5. Front spar depth at each control station, $D_{FS1\text{-}11}$
6. Rear spar depth at each control station, $D_{RS1\text{-}11}$
7. Structural distance from tip chord to each analysis control station, measured along structural reference line, $Y_{\Lambda 1\text{-}11}$

Values for these items are computed and stored in TXY array locations. Calling subroutine GEØMW processes the information into the appropriate storage locations of array T (Table 34). Subroutine GCNTL, overlay (14, 0) uses data stored in subarray YTB to create the control station geometry data stored in array TG. Array TG is used by overlays (14, 0), (15, 0), (16, 0), and (17, 0).

Two options are available for locating the spanwise positions of the 11 analysis control stations. The option to be used is determined by the code value specified in control word DYID, location 864, array D. A zero value results in location of the 11 equally spaced stations between the station values defined by input data locations D(246) and D(139), variable YØBD. A

nonzero value for DYID results in processing of control station data in input data locations D(865) - D(876), variable data subarray DYS. Processing of input station values are dependant upon the nonzero value of DYID and the magnitude of the values specified in DYS.

DYID code values of 1.0, 2.0, and 3.0 direct subroutine TBWDC to use the following processing options:

- Code value 1.0 = computed input station values to be referenced to the side of fuselage station, Y_1 = (value in D(246))/2.0. If input station values in DYS are 1.0 or less, the fractional values are applied to the span segment between the stations defined by D(246) and D(139).

- Code value 2.0 = computed input station values to be referenced to the planform centerline, Y_{1-11} = input Y - coordinates 1-11. If the input station values in DYS are 1.0 or less, the fractional values are applied to the span segment between the center-line and the station defined by D(139).

- Code value 3.0 = input control stations along the structural reference line, actual station values.

The code value of 3.0 for DYID is also interpreted to mean that 11-station geometry data for the structural box included in data locations D(876) - D(919), subarrays DTBW, DTBD, DFS, and DRS, are to be used in lieu of computed data. However, if only the station values in DYS are to be used, the W_1 location, D(876) or DTBW (1), must be set to 0.0. Input data in subarrays DTBW, DTBD, DFS, and DRS are not processed when the DYID code value is 0.0, 1.0 or 2.0.

Subroutine ABØXC is used to compute required geometry data at each control station. These computations are always executed, even if the desired data is inputed. ABØXC calculation results are used by subroutine TBWDC to develop necessary station data not included as input.

Subroutine TBWDC also computes center-section geometry data that are stored in array YTB, YLE, and YTE. Width, average depth, depth at the front and rear spars, and the planform geometric centroid station are computed for the center-section.

The code value for NCSEC, torque-box analysis type is created based on code word DYID and the input torque-box data sets. This code is a special code used to evaluate constant-section, constant load structures (center-section type). The code value is used by subroutine SECTD, overlay (10,0) to bypass evaluation for stations 1-10 and to use design values computed for station 11 for all stations. The code value for NCSEC is set to 1 for all normal outer panel type geometries. DYID code value of 3.0 directs subroutine TBWDC to examine W_1, as previously explained. If W_1 contains a positive value, the value for W_2 is examined. If W_2 is nonzero, TBWDC assumes a complete set of torque-box geometry is input; it continues processing of data for outer panel type analysis. If W_2 is specified as 0.0, the value for NCSEC is set to 2. This code condition directs TBWDC to set all station 2-11 values for W, Dave, D_{FS}, and D_{RS} equal to the values specified for station 1.

Subroutine TBWDC prints heading data for the output from subroutine DMAX under control of IP(5). This DMAX output set is computed data for center-section geometry.

Subroutine Variables

Variables referenced by subroutine TBWDC are listed in Table 49. Computed data stored in arrays TR and TT are defined in Tables 50 and 51.

Labeled Common Variables

Array IP, labeled common block IPRINT.

Mass Storage File Records

None.

Error Messages

None.

TABLE 49. VARIABLE REFERENCES, SUBROUTINE TBWDC

Variable Name	Size (Cells)	Common Ref Loc	Variable Description			Table Ref
			Type	Used	Calc	
AFID	1	D(143)	R	U	-	8,11,12
CSFS	1	D(506)	R	U	-	8,11,12
CSWD	1	D(480)	R	U	-	8,11,12
D	2,060	2061	R	U	-	3,8,11,12
DC	100	D(1401)	R	U	-	10,14
DFS	11	D(898)	R	U	-	8,11,12
DRS	11	D(909)	R	U	-	8,11,12
DTBD	11	D(887)	R	U	-	8,11,12
DTBW	11	D(876)	R	U	-	8,11,12
DYID	1	D(864)	R	U	-	8,11,12
DYS	11	D(865)	R	U	-	8,11,12
I	1	-	I	U	C	-
IP	80	/IPRINT/	I	U	-	7
ISEC	1	ND(55)	I	U	C	9,13
IWD	1	ND(31)	I	U	C	9,13
N	1	-	I	U	C	-
NCSEC	1	ND(81)	I	U	C	9,13
ND	100	6121	I	U	-	3,9,13
T	2,060	1	R	U	-	3
TR	16	T(1301)	R	U	C	50
TT	20	T(1317)	R	U	C	51
TXY	500	T(801)	R	U	C	30
YC	150	T(201)	R	U	C	38
YLE	109	TXY(179)	R	U	C	32,30
YØBD	1	D(139)	R	U	-	8,11,12
YTB	124	TXY(55)	R	U	C	31,30
YTC	60	T(351)	R	U	C	39
YTE	109	TXY(288)	R	U	C	33,30

TABLE 50. TR ARRAY, TBWDC

General information for array TR:
Blank common reference location = T(1301)
Array size = 16 cells
Array locations used for storage and retrieval of intermediate calculation data by subroutine TBWDC during calculations for torque-box, leading and trailing edge planform area parameters.

Array Location	Description
1-4	Values calculated data in locations 5, 6, 7, and 8 for loop index i value = 1-11, used as i-1 data when index value = 2-11
5	ΔC_{LE_i}, leading edge panel delta chord between front spar and true trailing edge at each analysis control station Y-coordinate, YC(95)-YC(93)
6	ΔC_{TE_i}, trailing edge panel delta chord between rear spar and true trailing edge at each analysis control station Y-coordinate, YC(99)-YC(97)
7	Delta chord parameter used to compute X-coordinate of leading edge panel i centroid
8	Delta chord parameter used to compute X-coordinate of trailing edge panel i centroid
9	$\Delta Y\Lambda_i$, length of torque-box panel i, $Y\Lambda_i - Y\Lambda_{i-1}$
10	ΔY_i, length of leading and trailing edge panel i, $Y_{EA_i} - Y_{EA_{i-1}}$
11	Factor for leading and trailing edge area calculation, $0.5\,\Delta Y_i / 144.0$
12	λ_i, panel tapes ratio for torque-box, leading edge, and trailing edge panel centroid calculations, C_i/C_{i-1}
13	y_{cpi}, centroid distances from the inboard end of the panels defined by the parameters in locations 9 or 10 and 12, each panel treated as trapezoidal sections, $y_{cp} = f(\Delta Y, \lambda)$
14-20	Not used

TABLE 51. TT ARRAY, TBWDC AND ABØXC

General information for array TT:
Blank common reference location = T(1317)
Array size = 20
Array locations used for storage and retrieval of geometry data by subroutines TBWDC and ABØXC.

Array Location	Description
1	Y_{IB} for analysis control station calculations by TBWDC, 0.0 or $b_1/2$. Also $\Delta Y\Lambda_i$. Y_i, storage for data save by ABØXC
2	Y_{OB} for analysis control station calculation by TBWDC, span control factor times b/2. Also exposed structural span. X_i, storage for data save by ABØXC
3	Structural station value factor, 1.0 or cos ΛEA for input swept or unswept station values, TBWDC C_i, true aerodynamic chord at the analysis control station Y-coordinate in TT(11), calculated by ABØXC for use by TBWDC
4	$Dmax_i$, maximum depth of airfoil corresponding to C_i above, calculated by ABØXC for use by TBWDC
5	Not used
6	D_{FS_i}, airfoil depth at front spar, ABØXC
7	D, intermediate local airfoil depth value calculated by DMAX, same as YTC(49), ABØXC
8-10	Not used
11	Y_{EA_i}, Y-coordinate of analysis control station, setup by TBWDC
12	X_{EA_i}, X-coordinate of analysis control station, setup by
13	A_i, calculated cross-sectional area of structural torque-box section at analysis control station i, calculated by ABØXC for TBWDC
14	W_{SC_i}, structural width of torque-box section at analysis control station i, calculated by ABØXC for TBWDC
15	D_{ave_i}, average depth of structural torque-box section of analysis control station i, A_i/W_{SC_i}, calculated by ABØXC for TBWDC. Also storage for intermediate data calculated by ABØXC.

TABLE 51. TT ARRAY, TBWDC AND ABØXC (CONCL)

Array Location	Description
16	Storage for intermediate data calculated by ABØXC and for D_{i-1} value during area integration loop
17	Y-coordinate for front spar at analysis control station i during initial calculations by ABØXC and during area integration, Y-coordinate of point (Y_i, X_i) on structural chord
18	X-coordinate for front spar at analysis control station i during initial calculations by ABØXC and during area integration, X-coordinate of point (Y_i, X_i) on structural chord
19	Y-coordinate for rear spar at analysis control station i during initial calculations by ABØXC and during area integration, ΔY
20	X-coordinate for rear spar at analysis control station i during initial calculations by ABØXC and during area integration, ΔX

SUBROUTINE ABØXC

Deck name:	ABØXC
Entry name:	ABØXC
Called by:	Subroutines GEØMW, TBWDC
Subroutines called:	DMAX

Subroutine ABØXC is the analysis routine used to compute geometry parameters for the torque-box at specified analysis control stations. Torque-box data are evaluated for section cuts normal to the structural reference line at each station YA_i.

The location of the analysis control station at which structural section information is to be computed is specified by the coordinates (Y_i, X_i). The calling subroutines must store these values in TT array locations 11 and 12. Computed data to be used by the calling subroutines are stored in the following locations:

- Array TT, locations 3, 4, 13, 14 and 15, torque-box cross-section data (Table 51)
- Array YC, locations 110-115, front and rear spar data (Table 38)
- Array YTC locations 55 and 60, torque-box depth data (Table 39)
- Array YC, locations 93, 95, 97 and 99, aerodynamic chord data at the structural reference Y-coordinate, Y_i, output from subroutine CAERØ (Table 38). These values are created by the call to CAERØ from subroutine DMAX during the last execution of DMAX by subroutine ABØXC.

Structural cross-section area is determined by numerical integration of finite trapizoidal sections computed along the structural chord. The number of chordwise sections is specified by the value in AFCC, location 153, array D. The airfoil depths at each point are determined by subroutine DMAX; the coodinates of DMAX depth evaluation points are specified in locations 47 and 48 of array YTC.

Subroutine ABØXC prints local station evaluation data based on the cord value in column 5, case control card 1, IP(5). The output is printed in conjunction with printed output from subroutine DMAX.

Subroutine Variables

Table 52 contains the variables referenced by subroutine ABØXC. Array TT is also used by subroutine TBWDC for storage and retrieval of calculated data (Table 51.) Data required by the ABØXC calls from subroutine GEØMW are items stored in TT(14), TT(15), YTC(60), and YC(104).

Labeled Common Variables

Array IP, labeled common block IPRINT.

Mass Storage File Records

None.

Error Messages

None.

TABLE 52. VARIABLE REFERENCES, SUBROUTINE ABØXC

Variable Name	Size	Common Ref Loc	Variable Description			Table Ref
			Type	Used	Calc	
AFCC	1	D(153)	R	U	-	8,11,12
AFID	1	D(143)	R	U	-	8,11,12
D	2060	2061	R	U	-	3,8,11,12
DC	100	D(1401)	R	U	-	10,14
I	1	-	I	U	C	-
IP	80	/IPRINT/	I	U	-	7
ISEC	1	ND(55)	I	U	-	9,13
N	1	ND(30)	I	U	C	9,13
ND	100	6121	I	U	-	3,9,13
T	2060	1	R	U	-	3
TBIBX	3	D(125)	R	U	-	8,11,12
TT	20	T(1317)	R	U	C	51
TXY	500	T(801)	R	U	-	30
YC	150	T(201)	R	U	C	38
YTC	60	T(351)	R	U	C	39

SUBROUTINE DMAX

Deck name: DMAX
Entry name: DMAX
Called by: Subroutines ABØXC, GEØMW, TBWDC
Subroutines called: CAERØ

Subroutine DMAX is used to compute local airfoil depths at specified coordinates Y_i, X_i. One of two evaluation procedures are used to compute local depths, d_i:

1. Evaluation of a polynomial equation of the form

$$Z_i = \left[ax_i^6 + bx_i^5 + cx_i^4 + dx_i^3 + ex_i^2 + fx_i\right]^{1/2}$$

to obtain the ordinate value as a fraction of the maximum airfoil depth D_{max_i}, where a, b, c, d, e, and f are polynomial coefficients for one of six types of standard airfoils. These values are stored in the airfoil data block of the SWEEP permanent data bank, mass storage file 1, record 6. The appropriate coefficient sets are moved into array AFD (Table 28) from array DAF by subroutine GEØMW (array DAF is initialized from record 36). Control code AFID values of 1-8 results in execution of this option. Currently polynomial coefficients for six types of airfoils are available. Thus, values for variable input data code for airfoil type, AFID, array D location 143, is restricted to 1.0 to 6.0 for polynomial type evaluation.

2. Interpolation of numerical values of normalized airfoil ordinates. A linear interpolation method is used to determine depths as the specified chordwise location $(X/C)_i$ from a table of depths at known (X/C) locations. This option allows for specifying different airfoil shapes at up to four spanwise control stations. Values for stations between these control stations are based on linear interpolation of the airfoil ordinates at the control stations. Depth information and control station data are stored in array TAF (Table 29). Values for (X/C) control points are stored in locations 1-48 of array DAF. This option is executed when the evaluation type code AFID is specified as 9.0. Use of this option requires reference airfoil type and location data in variable data array D locations 145-152, subarrays YAF and AFN.

The two procedures described herein result in airfoil depth values expressed as a fraction of the maximum depth at any spanwise station Y_i. The actual depth is determined by the product of this depth value Z_i and the maximum depth value D_{max_i}. The value of D_{max_i} is determined by subroutine DMAX from the appropriate spanwise linear D_{max} variation data stored in array YTC, locations 1-46. Subroutine CAERØ is used to evaluate the properties of the local chord at the specified station Y_i.

Printed output of calculated data from subroutine DMAX is controlled by column 5 of case control card 1, IP(5). Two types of data are printed. The standard output consists of the pertinent data evaluated at the specified station, the coordinates, chordwise parameters, and calculated depth values. The second output block is printed when option 2 is executed. This block consists of the TAF array data used for during the linear interpolation calculations.

Subroutine Variables

Table 53 contains the variables referenced by subroutine DMAX. The input coordinate values are located in YTC(47) for Y_i and YTC(48) for X_i. The primary output is stored in array YTC, locations 49, 50 and 57-60 (Table 39). Arrays AFD, DAF, TAF, and TXY contain data used by DMAX, Array YC contains the values for the local chord, as evaluated by subroutine CAERØ (Table 38).

Labeled Common Variables

Array IP, labeled common block IPRINT.

Mass Storage File Records

None.

Error Messages

None.

TABLE 53. VARIABLE REFERENCES, SUBROUTINE DMAX

Variable Name	Size (Cells)	Common Ref Loc	Variable Description			Table Ref
			Type	Used	Calc	
AFD	6	T(411)	R	U	-	8,11,12
AFID	1	D(143)	R	U	-	8,11,12
D	2,060	2061	R	U	-	3,8,11,12
DAF	500	T(1401)	R	U	-	25
DC	100	D(1401)	R	U	-	10,14
I	1	-	I	U	C	-
II	1	-	I	U	C	-
IP	80	/IPRINT/	I	U	-	7
J	1	-	I	U	C	-
K	1	-	I	U	C	-
KK	1	ND(29)	I	U	-	9,13
L	1	-	I	U	C	-
M	1	-	I	U	C	-
NAF	1	ND(67)	I	U	-	9,13
ND	100	6121	I	U	-	3,9,13
T	2,060	1	R	U	-	3
TAF	350	T(431)	R	U	C	29
TXY	500	T(801)	R	U	-	30
YC	150	T(201)	R	U	C	38
YTC	60	T(351)	R	U	C	39

SUBROUTINE CAERØ

Deck name: CAERØ
Entry name: CAERØ
Called by: Subroutines DMAX, GEØMC, GEØMW
Subroutines called: None

Subroutine CAERØ is used to compute aerodynamic chord information at any spanwise station Y_i. It computes X-coordinates at the five basic spanwise control lines:

- Leading edge reference line, trapezoidal planform
- Front spar reference line
- Structural reference line
- Rear spar reference line
- Trailing edge reference line, trapezoidal planform

If nonlinear leading or trailing edge planform is specified, this subroutine performs the necessary interpolation of blended leading edge or cranked trailing edge geometry data to compute the actual location of the true leading and trailing edges.

Local chordwise distances and chord fraction information are also computed. Computed data are used primarily by subroutine DMAX.

Subroutine Variables

A summary of variables used and calculated is presented in Table 54. Input constants are contained in arrays TXY and YC. Station coordinates for the chordwise computations are specified in locations YC(100) for Y_i and YC(101) for X_i. Primary output is stored in YC array locations 93-99 and 102-106.

Labeled Common Variables

None.

Mass Storage File Records

None.

Error Messages

None.

TABLE 54. VARIABLE REFERENCES, SUBROUTINE CAERØ

Variable Name	Size (Cells)	Common Ref Loc	Variable Description			Table Ref
			Type	Used	Calc	
I	1	-	I	U	C	-
ND	100	6121	I	U	-	3,9,13
T	2,060	1	R	U	-	3
TXY	500	T(801)	R	U	-	30
YC	150	T(201)	R	U	C	38

SUBROUTINE SWPXYP

Deck name:	SWPXYP
Entry name:	SWPXYP (Y_i, X_i, YP_i, XP_i)
Called by:	Subroutine VSGEØM
Subroutines called:	None

Subroutine SWPXYP is used by subroutine VSGEØM to determine the swept planform coordinates YP_i and XP_i of the point (Y_i, X_i) on the reference planform. The coordinates (YP_i, XP_i) are computed for the specified angular rotation of the planform about the pivot axis in D(320), variable DLLMDA. The pivot coordinates (Y_p, X_p) are stored in array TVS, locations 21 and 22, named YPØ and XPØ in subroutine SWPXYP. Values for (YP_i, XP_i) are based on the geometric relationships of a line of given length, L, rotated $\pm\Delta\Lambda$ degrees, where L is the distance between the pivot point (Y_p, X_p) and the known point (Y_i, X_i).

Subroutine Variables

Table 55 contains the variables referenced in subroutine SWPXYP. Variables CØSDL and SINDL are the values for the cosine and sine of the angle of rotation. The primary input and output from subroutine SWPXYP are through the specified arguments. Array TT, locations 1-7, is used to store necessary computed values. Definitions for the array TT variables are as follows:

TT(1) = ΔY_i, $Y_i - Y_p$
TT(2) = ΔX_i, $X_i - X_p$
TT(3) = L, distance between pivot point and analysis point
TT(4) = sine of sweep angle for line L before rotation
TT(5) = cosine of sweep angle for line L before rotation
TT(6) = sine of sweep angle of line L in rotated position
TT(7) = cosine of sweep angle of line L in rotated position

Specifications for point (Y_i, X_i) must not be the same as the pivot point (Y_p, X_p); i.e., L = 0. This condition will result in program error resulting from division by zero. Subroutine SWPXYP does not test for this condition.

Labeled Common Variables

None.

Mass Storage File Records

None.

Error Messages

None.

TABLE 55. VARIABLE REFERENCES, SUBROUTINE SWPXYP

Variable Name	Size (Cells)	Common Ref Loc	Variable Description			Table Ref
			Type	Used	Calc	
CD	2,000	4161	R	U	-	3
CØSDL	1	TVS(38)	R	U	-	35
SINDL	1	TVS(37)	R	U	-	35
T	2,060	1	R	U	-	3
TT	24	T(1317)	R	U	C	-
TVS	400	CD(601)	R	U	-	35
X	1	ARG	R	U	-	-
XP	1	ARG	R	-	C	-
XPØ	1	TVS(22)	R	U	-	35
Y	1	ARG	R	U	-	-
YP	1	ARG	R	-	C	-
YPØ	1	TVS(21)	R	U	-	35

SUBROUTINE PRTG

Deck name: PRTG
Entry name: PRTG
Called by: Subroutine GEØMW
Subroutines called: None

Subroutine PRTG is the routine that organizes and prints the geometry summary data for the surface being evaluated. The printed output data (Figures 58 and 59) are printed under control of column 6, case control card 1. This code word, stored in location 6, array IP, is tested by subroutine GEØMW; subroutine PRTG is executed if the code value is zero, print geometry summary data. An additional page of summary data is printed for variable sweep wing designs if location D(320) variable DLLMDA, is specified as a non-zero number. The data on this page (Figure 60) consist of geometry parameters for the wing in the swept position.

Subroutine PRTG uses subroutine GCØMP to organize the contents of array TD. Array TS data are created from the data set stored in array TD before output. Swept planform data are retrieved from array TVS during outprint printing.

Subroutine PRTG prints the contents of array TXY before exit under control of column 7 of case control card 1.

Subroutine Variables

Table 56 contains the variables referenced by subroutine PRTG. Array R contains the contents of the two case title cards. These titles are printed on each summary page.

Labeled Common Variables

Array IP, labeled common block IPRINT
Array R, XMISC array locations 85-100
Array XMISC, labeled common block MISC

Mass Storage File Records

None

Error Messages

None

CASE NO. 1 REFERENCE WING

** PRTG - IP(6) **

*** GEOMETRY DATA - WEIGHT ANALYSIS REFERENCE ***

** PLANFORM GEOMETRY PARAMETERS---SWEEP= 15.00 DEGREES AT 0.0 C. **

PANEL	AREA	AR	T.P.	T/C(R)	T/C(T)	SIGMA	C(R)	C(TIP)	SPAN/2	BS/B1
GROSS	1946.000	9.6000	0.35000	0.12062	0.09185	0.76145	253.112	88.589	820.084	835.658
EXPOSED	1411.528	8.5096	0.40174	0.11833	0.09185	0.77619	220.512	88.589	657.584	162.500
STRUCT.	1411.528	8.7391	0.40174	0.11926	0.09257	0.77620	219.799	87.900	670.072	165.586
P(AERO)	1465.550	8.6280	0.39545	0.11861	0.09185	0.77437	224.023	88.589	675.084	145.000
P(STRC)	1484.347	8.8556	0.39449	0.11925	0.09257	0.77625	222.821	87.900	687.905	147.754
CL-Y1	525.190	1.3451	0.87360	0.12062	0.11838	0.98142	253.112	221.119	159.474	162.502
CL-Y11	1881.398	8.7624	0.38940	0.12062	0.09633	0.79858	253.112	98.561	770.377	785.008
Y1-Y11	1356.207	7.6439	0.44574	0.11838	0.09633	0.81371	221.119	98.561	610.904	622.505
Y11-B/2	64.601	1.0624	0.89882	0.09633	0.09185	0.95350	98.561	88.589	49.706	50.650

** PLANFORM EQUATIONS AND COORDINATES. **

ITEM	LE	FS	EA	RS	TE	FS(O)	.25 C	AERO C	STRUC. C
TAN	0.267949	0.237856	0.195816	0.140228	0.067331	0.0	0.217794	-0.200617	-0.195351
CXO	849.600	887.567	940.606	998.999	1102.712	0.0	912.878	253.112	251.147
SIN	0.258819	0.231400	0.192167	0.138869	0.067179	0.0	0.212805		
COS	0.965926	0.972859	0.981362	0.990311	0.997741	0.0	0.977095		
ANGLE	15.000	13.380	11.079	7.982	3.852	0.0	12.287		
EQU X/C		0.149999	0.359554	0.562179					
X-B1/2	893.141	926.218	972.427	1021.786	1113.653	0.0	948.269		
X-PIVOT	888.452	922.056	969.000	1019.332	1112.475	0.0	948.269		
X-B/2	1069.340	1082.628	1101.192	1113.998	1157.929	0.0	1091.487		

** T/C, LE, TE CONTROL POINTS. **

POINT	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
Y(R.P.)	0.0	820.08	820.08	820.08	820.08	820.08	820.08	820.08	820.08	820.08	820.08
T/C	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
DMAX	30.532	8.137	8.137	8.137	8.137	8.137	8.137	8.137	8.137	8.137	8.137
Y(LE)	0.0	820.08	820.08	820.08	820.08	820.08	820.08	820.08	820.08	820.08	820.08
X(LE)	849.60	1069.34	1069.34	1069.34	1069.34	1069.34	1069.34	1069.34	1069.34	1069.34	1069.34
Y(TE)	0.0	820.08	820.08	820.08	820.08	820.08	820.08	820.08	820.08	820.08	820.08
X(TE)	1102.71	1157.93	1157.93	1157.93	1157.93	1157.93	1157.93	1157.93	1157.93	1157.93	1157.93

Figure 58. Geometry summary data - page 1.

CASE NO. 1 REFERENCE WING

** PRTG - IP(6) **

*** STRUCTURAL SYSTEM GEOMETRY DATA -- REF SWEEP= 15.00 DEGREES AT 0.0 C. ***

POINT	YEA(A)	Y(STRUC)	YI/YO	C(AERO)	DMAX	T/C	XEA(A)	Y(FS)	X(FS)	Y(RS)	X(RS)
1	159.474	162.502	-0.0046	221.119	26.177	0.11839	971.834	168.143	927.560	150.035	1020.038
2	193.820	197.501	0.0476	214.229	25.239	0.11781	978.560	202.219	935.666	184.745	1024.906
3	244.359	249.000	0.1245	204.090	23.859	0.11693	988.456	252.361	947.592	235.819	1032.068
4	292.452	298.006	0.1976	194.441	22.545	0.11595	997.873	300.075	958.941	284.421	1038.883
5	364.868	371.797	0.3077	179.914	20.568	0.11432	1012.053	371.922	976.030	357.604	1049.145
6	434.746	443.002	0.4140	165.995	18.660	0.11248	1025.737	441.250	992.521	428.223	1059.048
7	504.917	514.506	0.5207	151.917	16.743	0.11029	1039.477	510.869	1009.080	499.137	1068.992
8	573.122	584.006	0.6244	138.134	14.881	0.10773	1052.833	578.538	1025.175	568.065	1078.658
9	640.640	652.806	0.7271	124.589	13.037	0.10464	1066.054	645.524	1041.108	636.298	1088.226
10	706.096	719.506	0.8267	111.457	11.250	0.10093	1078.872	710.466	1056.555	702.448	1097.502
11	770.377	785.008	0.9244	98.561	9.494	0.09633	1091.459	774.240	1071.724	767.410	1106.612

POINT	Y(STRUC)	WIDTH	D(TB)	D(FS)	D(RS)	XA(TB)	K(SEC)	MAX D	DS(TB)	J1(TB)	J2(TB)
1	162.502	94.234	25.491	24.825	23.430	2402.096	0.9819	26.120	236.723	9749.887	19499.773
2	197.501	90.935	24.585	23.935	22.626	2235.644	0.9822	25.183	228.430	8752.094	17504.184
3	249.000	86.090	23.252	22.625	21.442	2001.571	0.9826	23.805	216.226	7411.281	14822.559
4	298.006	81.460	21.984	21.378	20.314	1790.822	0.9830	22.494	204.612	6269.504	12539.008
5	371.797	74.504	20.073	19.500	18.615	1495.519	0.9836	20.520	187.122	4780.988	9561.977
6	443.002	67.791	18.228	17.688	16.973	1235.666	0.9844	18.614	170.243	3587.509	7175.016
7	514.506	61.050	16.373	15.869	15.320	999.569	0.9852	16.701	153.289	2607.205	5214.406
8	584.006	54.498	14.568	14.100	13.710	793.954	0.9861	14.844	136.806	1843.088	3686.175
9	652.806	48.012	12.780	12.349	12.095	613.613	0.9868	13.008	120.469	1250.180	2500.360
10	719.506	41.725	11.044	10.652	10.518	460.824	0.9881	11.222	104.620	811.928	1623.857
11	785.008	35.550	9.336	8.985	8.962	331.907	0.9895	9.469	89.047	494.847	989.694

AVE K(SEC)=0.9848 T(J)=0.100 0.200

PANEL	S(TOT)	S(TB)	S(LE)	S(TE)	VOL(TB)	VOL(LE)	VOL(TE)	DELY(A)	DELY(S)	S S(TB)	SVOL(TB)
SUM	678.448	280.524	101.715	296.208	436.4177	0.0	0.0	0.0	0.0	0.0	0.0
1	51.956	22.502	7.788	21.666	46.9658	0.0	0.0	34.346	34.999	280.524	436.4180
2	73.458	31.653	11.011	30.794	63.1397	0.0	0.0	50.539	51.499	258.022	389.4521
3	66.594	28.509	9.983	28.103	53.7760	0.0	0.0	48.093	49.006	226.370	326.3125
4	94.188	39.961	14.119	40.108	70.1690	0.0	0.0	72.416	73.792	197.861	272.5366
5	83.952	35.131	12.586	36.185	56.2715	0.0	0.0	69.878	71.205	157.900	202.3677
6	77.449	31.988	11.612	33.849	46.2464	0.0	0.0	70.171	71.504	122.719	146.0962
7	68.697	27.884	10.300	30.512	36.0679	0.0	0.0	68.205	69.500	90.731	99.8498
8	61.613	24.489	9.239	27.885	29.0210	0.0	0.0	67.518	68.800	62.847	63.7819
9	53.660	20.783	8.047	24.931	20.7361	0.0	0.0	65.456	66.699	38.358	35.7609
10	46.881	17.575	7.031	22.274	15.0248	0.0	0.0	64.281	65.502	17.575	15.0248

Figure 59. Geometry summary data - page 2.

CASE NO. 1 REFERENCE WING

*** SWEPT POSITION GEOMETRY DATA ***
DELTA SWEEP= 53.13 DEG. LE SWEEP= 68.13

PANEL	AREA	AR	T.R.	T/C(R)	T/C(T)	SIGMA	C(R)	C(TIP)	SPAN/2	BS/B1
GROSS	2455.656	2.2317	0.30586	0.05037	0.04363	0.87135	609.781	186.505	444.260	1021.214
EXPOSED	1255.129	1.7570	0.40994	0.05736	0.04363	0.76067	454.957	186.505	281.760	162.500
STRUCT.	1359.730	8.5493	0.40994	0.12169	0.09257	0.76067	214.425	87.901	647.678	373.536
B(AERO)	1367.734	1.8188	0.30545	0.05634	0.04363	0.77437	471.630	186.505	299.260	145.000
B(STRC)	1481.785	8.8709	0.30545	0.11954	0.09257	0.77437	222.283	87.901	687.905	333.309

** PLANFORM EQUATIONS AND COORDINATES. **

ITEM	LE	FS	FA	PS	TE	FS(0)	.25 C	AERO C	STRUC. C
TAN	2.491775	2.301264	2.069771	1.812681	1.539329	0.0	2.043676	-0.952767	-0.449046
CXO	368.736	520.734	668.923	809.350	1008.577	0.0	551.241	609.781	287.395
SIN	0.900415	0.875598	0.838532	0.372447	0.398542	0.0	0.898234		
COS	0.372447	0.398542	0.435031	0.483040	0.544852	0.0	0.439519		
ANGLE	68.133	66.513	64.213	61.116	56.985	0.0	63.927		
EQU X/C		0.199952	0.637703	0.442925					
X-B1/2	803.709	894.679	1005.220	1103.911	1256.666	0.0	883.338		
X-PIVOT	760.103	854.407	969.030	1072.189	1231.733	0.0	947.574		
X-B/2	1505.792	1543.083	1588.400	1614.652	1692.297	0.0	1459.165		

*** STRUCTURAL SYSTEM GEOMETRY DATA -- REF SWEEP= 68.13 DEGREES AT 0.0 C. ***

POINT	YFA(A)	Y(STRUC)	YI/YO	C(AERO)	DMAX	T/C	XEA(A)	Y(FS)	X(FS)	Y(RS)	X(RS)
1	151.416	348.058	-0.0293	465.517	26.177	0.05623	982.280	192.038	962.654	107.188	1003.648
2	166.642	383.057	0.0147	451.011	25.239	0.05596	1013.793	205.998	994.778	124.119	1034.338
3	189.045	434.555	0.0342	429.665	23.959	0.05553	1060.163	226.538	1042.048	149.031	1079.496
4	211.264	483.562	0.1699	409.353	22.545	0.05508	1104.289	246.085	1087.031	172.737	1122.468
5	247.466	557.353	0.2838	378.768	20.568	0.05430	1170.732	275.518	1154.763	209.434	1187.174
6	273.442	623.559	0.3937	349.255	18.660	0.05343	1234.846	303.919	1220.121	242.879	1249.613
7	304.543	700.062	0.5041	319.618	16.743	0.05239	1299.229	332.439	1285.753	277.469	1312.312
8	334.784	769.562	0.6115	290.811	14.891	0.05117	1361.808	360.160	1349.548	311.089	1373.256
9	364.714	838.362	0.7177	262.294	13.037	0.04970	1423.757	387.602	1412.699	344.371	1433.585
10	393.730	905.061	0.8207	234.649	11.250	0.04796	1483.814	414.206	1473.921	376.637	1492.073
11	422.226	970.564	0.9218	207.439	9.494	0.04576	1542.793	440.333	1534.045	408.323	1549.510

Figure 60. Geometry summary data - swept planform position.

TABLE 56. VARIABLE REFERENCES, SUBROUTINE PRTG

Variable Name	Size (Cells)	Common Ref Loc	Variable Description			Table Ref
			Type	Used	Calc	
CD	2,000	4121	R	U	-	3
D	2,060	2061	R	U	-	3,8,11,12
DC	100	D(1401)	R	U	-	10,14
DLLMDA	1	D(320)	R	U	-	8,11,12
DYPVT	1	D(200)	R	U	-	8,11,12
I	1	-	I	U	C	-
IP	80	/IPRINT/	I	U	-	7
J	1	-	I	U	C	-
K	1	-	I	U	C	-
N	1	-	I	U	C	-
NCASE	1	ND(60)	I	U	-	9,13
ND	100	6121	I	U	-	3,9,13
NPAGE	1	ND(85)	I	U	-	9,13
R	16	XMISC(85)	A	U	-	6
T	2,060	1	R	U	-	3
TD	600	CD(1101)	R	U	C	40
TS	600	CD(1)	R	U	C	41
TVS	400	CD(601)	R	U	-	35
TXY	500	T(801)	R	U	-	30
XMISC	100	/MISC/	R,A	U	-	6

SUBROUTINE GCØMP

Deck name: GCØMP
Entry name: GCØMP
Called by: Subroutine PRTG
Subroutines called: None

Subroutine GCØMP is used to process computed geometry data into array TD for output as printed summary data by subroutine PRTG. This subroutine is executed by subroutine PRTG only when a code value of zero is specified in column 6 of case control case card 1, IP(6), printed geometry summary data required. Data for the TD array (Table 40) are retrieved primarily from arrays D and TXY. Much of the data values are transferred directly; minor recalculations are made, only to conform to output block requirements.

Subroutine GCØMP calculations and the contents of array TD do not affect any downstream subroutine computations except that of subroutine PRTG.

Subroutine Variables

Variables referenced by subroutine GCØMP are presented in Table 57. Data in array TS, locations 1-88 are initially set up by GCØMP, but are not used. Subroutine PRTG subsequently uses these locations for storage of geometry parameters for control stations 1-11 (Table 41).

Labeled Common Variables

None.

Mass Storage File Records

None.

Error Messages

None.

TABLE 57. VARIABLE REFERENCES, SUBROUTINE GOØMP

Variable Name	Size (Cells)	Common Ref Loc	Variable Description			Table Ref
			Type	Used	Calc	
CD	2,000	4121	R	U	-	3
D	2,060	2061	R	U	-	3,8,11,12
DC	100	D(1401)	R	U	-	10,14
DTC	22	D(2031)	R	U	-	24,8,11,12
DYPVT	1	D(200)	R	U	-	8,11,12
I	1	-	I	U	C	-
N	1	-	I	U	C	-
ND	100	6121	I	U	-	3,9,13
SWPPC	1	D(138)	R	U	-	8,11,12
T	2,060	1	R	U	-	3
TD	600	CD(1101)	R	U	C	40
TS	600	CD(1)	R	U	C	41
TVS	400	CD(601)	R	U	-	34
WAR	1	D(241)	R	U	-	8,11,12
WAREA	1	D(240)	R	U	-	8,11,12
WSWP	1	D(242)	R	U	-	8,11,12
WTR	1	D(244)	R	U	-	8,11,12
YC	150	T(201)	R	U	-	38
YTC	60	T(351)	R	U	-	39

Section IV

SUBROUTINE REFERENCE TABLES FOR OVERLAYS (9,0), (10,0), (14,0), (15,0), (16,0), (17,0), AND (18,0)

Subroutine reference tables for wing and empennage module overlays other than overlay (8,0) are found in this section. Table 58 lists all module routines in alphabetical order with references to corresponding external reference or subroutine variable reference tables. Tables 59 through 154 includes the general overlay and individual subroutine variable data reference information for overlays (9,0), (10,0), (14,0), (15,0), (16,0), (17,0) and (18,0).

TABLE 58. CROSS-REFERENCE LIST FOR SUBROUTINE VARIABLE REFERENCE TABLES

Routine	Overlay	Table	Routine	Overlay	Table
			BHDJT	18	119
ØLAY8	8	19	BØT	10	105
ØLAY9	9	62	BØTC	10	106
ØLAY10	10	63	CAERØ	8	54
ØLAY14	14	59	CASE	8	44
ØLAY15	15	60	CCNTL	8	43
ØLAY16	16	61	CDL	15	76
ØLAY17	17	65	CG3P	10	123
ØLAY18	18	64	CKSFDH	18	137
ABDW	16	88	CKSTAB	18	134
ABØXC	8	52	CNSTC	16	87
ACEIGJ	18	144	CNSTR	10	102
ACLØAD	18	128	CSECW	9	95
ACMRSK	18	140	CSECW	18	95
ACNSTR	18	132	CTØT	17	154
ACPRØG	18	127	CTØT1	14	154
ACPRTA	18	146	CTØT2	15	154
ACSTRG	18	141	DEADW	9	91
ACWFDH	18	136	DEADW	18	91
ACWMS	18	133	DLPVT	9	99
ACWRBS	18	138	DLPVT	18	99
ACWSTR	18	139	DMAX	8	53
ALØAD	16	83	DWYBA	9	92
ASTIFF	18	143	DWYBA	18	92
ATBØPT	18	131	EIGJC	10	117
AVLØAD	18	130	FDIS	15	77
BHDJT	10	119	GCNTL	14	67

TABLE 58. CROSS-REFERENCE LIST FOR SUBROUTINE VARIABLE REFERENCE TABLES (CONT)

Routine	Overlay	Table	Routine	Overlay	Table
GCØMP	8	57	PRTH	18	101
GEØMC	8	47	PRTM	15	78
GEØMW	8	46	RTRIB	10	120
GJCAL	16	84	RTRIB	18	120
GJSI	16	85	SECTD	10	103
GJTT	16	86	SFSCH	10	104
LETEI	14	72	SKWEB	10	115
LEWT	14	68	SRRIB	10	113
MISCIT	15	75	SS	10	122
MISCNT	15	74	SS2	10	122
MTLCW	16	80	STBAR	10	108
MTLFW	16	81	STRG	10	109
MTLPW	16	82	STRGØ	10	110
PINTØ	17	153	STRIB	10	112
PIVØT	9	96	STRIL	10	111
PIVØT	18	96	STWEB	10	114
PRØG	9	90	SWPXYP	8	55
PRTA	9	100	TBFWI	17	149
PRTB	10	124	TBFWI1	15	149
PRTB	18	124	TBØPT	9	94
PRTBK	10	125	TBWDC	8	49
PRTC	10	126	TEDEV	14	71
PRTC	18	126	TEE	9	97
PRTD	17	148	TEE	18	97
PRTG	8	56	TEL	9	98
PRTH	9	101	TEL	18	98

TABLE 58. CROSS-REFERENCE LIST FOR SUBROUTINE VARIABLE REFERENCE TABLES (CONCL)

Routine	Overlay	Table	Routine	Overlay	Table
TEMPC	18	129			
TEWT	14	69			
TEWT1	14	70			
TPINT	17	152			
TSCH	10	107			
VFCAL	10	116			
VLØAD	9	93			
VLØAD1	16	93			
VSCEØM	8	48			
WCØNT	15	73			
WDDATA	16	79			
WEIGH1	18	135			
WEIGH2	18	142			
WFLDD	17	150			
WLETE	14	66			
WØDATA	17	147			
WTCAL	10	118			
WTCAL	18	118			
WTPIN	10	121			
WTPIN	18	121			
WVFDD	17	151			
XN	18	145			
YBSET	16	89			

TABLE 59. EXTERNAL REFERENCES, OVERLAY (14,0) ROUTINES

Name	Type	Called By	External Reference	Inline Function	File Names
ØLAY14	Program	ØLAYOO	UNIT	-	TAPE24
			WLETE		
CTØT1	Subroutine	GCNTL	-	-	TAPE6
		LEWT			
		TEWT			
		TEDEV			
		TEWTI			
GCNTL	Subroutine	WLETE	CTØT1	-	TAPE6
LETEI	Subroutine	WLETE	-	INT	TAPE6
LEWT	Subroutine	WLETE	CTØT1	-	TAPE6
		.	TEWTI		
TEDEV	Subroutine	TEWTI	CTØT1	-	TAPE6
TEWT	Subroutine	WLETE	CTØT1		
			TEWTI		
TEWTI	Subroutine	TEWT	CTØT1	-	TAPE6
			SQRT		
			TEDEV		
WLETE	Subroutine	ØLAY14	GCNTL	-	TAPE6
			LETEI		
			LEWT		
			TEWT		
			WRITMS		

TABLE 60. EXTERNAL REFERENCES, OVERLAY (15,0) ROUTINES

NAME	Type	Called By	External Reference	Inline Function	File Names
ØLAY15	Program	ØLAYØØ	UNIT WCØNT	-	TAPE24
CDL	Subroutine	MISCNT	CTØT2	ABS	TAPE6
CTØT2	Subroutine	MISCNT MISCIT CDL FDIS	-	-	TAPE6
FDIS	Subroutine	WCØNT	CTØT2 TBFWI1	-	TAPE6
MISCIT	Subroutine	MISCNT	CTØT2 PRTM	-	TAPE6
MISCNT	Subroutine	WCØNT	CDL CTØT2 MISCIT	ABS	TAPE6
PRTM	Subroutine	MISCIT	-	-	TAPE6
TBFWI1	Subroutine	FDIS	-	INT	TAPE6
WCØNT	Subroutine	ØLAY15	FDIS MISCNT WRITMS	-	-

TABLE 61. EXTERNAL REFERENCES, OVERLAY (16,0) ROUTINES

Name	Type	Called By	External Reference	Inline Function	File Names
ØLAY16	Program	ØLAYOO	UNIT	-	TAPE24
			WDDATA		
ABDW	Subroutine	WDDATA	VLØAD1	-	TAPE6
ALØAD	Subroutine	WDDATA	READMS	ABS	TAPE6
			SQRT		
CNSTC	Subroutine	WDDATA	SQRT	IFIX	-
			SS2		
GJCAL	Subroutine	WDDATA	ALØG	-	TAPE6
			GJSI		
			GJTT		
			READMS		
GJSI	Subroutine	GJCAL	ALØG	-	-
GJTT	Subroutine	GJCAL	READMS	-	TAPE6
MTLCW	Subroutine	WDDATA	MTLFW	-	TAPE6
			MTLPW		
			READMS		
MTLFW	Subroutine	MTLCW	ALØG	-	TAPE6
			EXP		
MTLPW	Subroutine	MTLCW	-	-	TAPE6
SS2	Subroutine	CNSTC	EXP	-	-
			SQRT		
VLØAD1	Subroutine	ABDW	-	ABS	TAPE6
WDDATA	Subroutine	ØLAY16	ABDW	-	TAPE6
			ALØAD		
			CNSTC		
			GJCAL		
			MTLCW		

TABLE 61. EXTERNAL REFERENCES, OVERLAY (16,0) ROUTINES (CONCL)

Name	Type	Called By	External Reference	Inline Function	File Names
YBSET	Subroutine	WDDATA	READMS WRITMS YBSET SQRT	ABS	-

TABLE 62. EXTERNAL REFERENCES, OVERLAY (9,0) ROUTINES

Name	Type	Called By	External Reference	Inline Function	File Names
ØLAY9	Program	ØLAYOO	PRØG	-	TAPE24
			UNIT		
CSECW	Subroutine	TBØPT	SQRT	-	-
DEADW	Subroutine	DWYBA	-	-	-
		PRØG			
DLPVT	Subroutine	TBØPT	SQRT	-	TAPE6
DWYBA	Subroutine	PRØG	DEADW	ABS	TAPE6
			SQRT		
PIVØT	Subroutine	TBØPT	ATAN2	ABS	TAPE6
			CØS		
			SIN		
			SQRT		
			TEE		
			TEL		
PRØG	Subroutine	ØLAY9	DEADW	IFIX	-
			DWYBA		
			READMS		
			TBØPT		
			VLØAD		
			WRITMS		
PRTA	Subroutine	TBØPT	-	-	TAPE6
PRTH	Subroutine	TBØPT	-	-	TAPE6
TBØPT	Subroutine	PRØG	CSECW	-	-
			DLPVT		
			PIVØT		
			PRTA		
			PRTH		
			READMS		

TABLE 62. EXTERNAL REFERENCES, OVERLAY (9,0) ROUTINES (CONCL)

Name	Type	Called By	External Reference	Inline Function	File Names
			WRITMS		
TEE	Subroutine	PIVØT	CØS	ABS	-
			SIN		
	•		SQRT		
TEL	Subroutine	PIVØT	CØS	ABS	-
			SIN		
			SQRT		
VIØAD	Subroutine	PRØG	-	ABS	TAPE6

TABLE 63. EXTERNAL REFERENCES, OVERLAY (10,0) ROUTINES (CONT)

Name	Type	Called By	External Reference	Inline Function	File Names
ØLAY10	Program	ØLAYOO	CNSTR	-	TAPE24
			UNIT		
BHDJT	Subroutine	WTCAL	-	ABS	-
BØT	Subroutine	SECTD	BØTC	ABS	-
		SFSCH	CG3P		
			SQRT		
			SS		
BØTC	Subroutine	BØT	SQRT	-	-
			SS		
CG3P	Subroutine	BØT	SQRT	AMIN1	TAPE6
		STWEB			
		STRIB			
		TSCH			
		SFSCH			
CNSTR	Subroutine	ØLAY10	EIGJC	ABS	-
			PRTB		
			PRTC		
			SECTD		
			SS		
			VECAL		
			WRITMS		
			WTCAL		
EIGJC	Subroutine	CNSTR	SQRT	-	-
PRTB	Subroutine	CNSTR	-	-	TAPE6
PRTBK	Subroutine	TSCH	-	-	TAPE6
		STRG			
PRTC	Subroutine	CNSTR	-	-	TAPE6
RTRIB	Subroutine	WTCAL	-	ABS	-

TABLE 63. EXTERNAL REFERENCES, OVERLAY (10,0) ROUTINES (CONT)

Name	Type	Called By	External Reference	Inline Function	File Names
SECTD	Subroutine	CNSTR	BØT	INT	-
			SFSCH		
			SQRT		
			SS		
			STWEB		
SFSCH	Subroutine	SECTD	BØT	-	-
			CG3P		
			TSCH		
SKWEB	Subroutine	STWEB	SQRT	-	-
SRRIB	Subroutine	STRIB	SS	-	-
SS	Subroutine	BØT	EXP	-	-
		BØTC	SQRT		
		TSCH			
		STRIB			
		SRRIB			
		SECTD			
STBAR	Subroutine	TSCH	STRG	-	-
			STRIB		
			STRIL		
STRG	Subroutine	STBAR	PRTBK	-	-
			SQRT		
			STRGØ		
STRGØ	Subroutine	STRG	-	-	-
		TSCH			
STRIB	Subroutine	STBAR	CG3P	ABS	-
			SRRIB		
			SS		

TABLE 63. EXTERNAL REFERENCES, OVERLAY (10,0) ROUTINES (CONCL)

Name	Type	Called By	External Reference	Inline Function	File Names
STRIL	Subroutine	STBAR	SQRT	-	-
STWEB	Subroutine	SECTD	CG3P	ABS	-
			SKWEB		
TSCH	Subroutine	SFSCH	CG3P	-	-
			PRTBK		
			SS		
			STBAR		
			STRGØ		
VFCAL	Subroutine	CNSTR	-	-	-
WTCAL	Subroutine	CNSTR	BHDJT	ABS	-
			RTRIB		
			WTPIN		
WTPIN	Subroutine	WTCAL	-	-	-

TABLE 64. EXTERNAL REFERENCES, OVERLAY (18,0) ROUTINES

Name	Type	Called By	External Reference	Inline Function	File Names
ØLAY18	Program	ØLAYOO	ACPRØG	-	TAPE24
			UNIT		
ACEIGJ	Subroutine	ASTIFF	-	-	TAPE6
ACLØAD	Subroutine	ACPRØG	READMS	-	TAPE6
			WRITMS		
ACMRSK	Subroutine	ACWSTR	SQRT	ABS	TAPE6
				INT	
ACNSTR	Subroutine	ATBØPT	PRTB	ABS	TAPE6
			PRTC		
			WRITMS		
			WTCAL		
ACPRØG	Subroutine	ØLAY18	ACLØAD	IFIX	-
			ATBØPT		
			AVLØAD		
			DEADW		
			DWYBA		
			READMS		
			TEMPC		
			WRITMS		
ACPRTA	Subroutine	ATBØPT	READMS	-	TAPE6
ACSTRG	Subroutine	ACWSTR	-	-	TAPE6
ACWFDH	Subroutine	ACWMS	CKSFDH	INT	-
ACWMS	Subroutine	ATBØPT	ACWFDH	ABS	TAPE6
			ASTIFF	INT	
			CKSTAB		
			WEIGHT		
			XN		

TABLE 64. EXTERNAL REFERENCES, OVERLAY (18,0) ROUTINES (CONT)

Name	Type	Called By	External Reference	Inline Function	File Names
ACWRBS	Subroutine	ATBØPT	ACWSTR	ABS	TAPE6
			ASTIFF	INT	
			CKSTAB		
			WEIGH2		
			XN		
ACWSTR	Subroutine	ACWRBS	ACMRSK	INT	TAPE6
			ACSTRG		
			CKSTAB		
			SQRT		
			XN		
ASTIFF	Subroutine	ACWMS	ACEIGJ	-	TAPE6
		ACWRBS			
ATBØPT	Subroutine	ACPRØG	ACNSTR	INT	-
			ACPRTA		
			ACWMS		
			ACWRBS		
			CSECW		
			DLPVT		
			PIVØT		
			PRTH		
			READMS		
			WRITMS		
AVLØAD	Subroutine	ACPRØG	READMS	-	TAPE6
BHDJT	Subroutine	WTCAL	-	ABS	-
CKSFDH	Subroutine	ACWFDH	SQRT	-	TAPE6
CKSTAB	Subroutine	ACWMS	SQRT	ABS	TAPE6
		ACWRBS			
		ACWSTR			

TABLE 64. EXTERNAL REFERENCES, OVERLAY (18,0) ROUTINES (CONT)

Name	Type	Called By	External Reference	Inline Function	File Names
CSECW	Subroutine	TBØPT	SQRT	-	-
DEADW	Subroutine	DWYBA	-	-	TAPE6
		ACPRØG			
DLPVT	Subroutine	ATBØPT	SQRT	-	TAPE6
DWYBA	Subroutine	ACPRØG	DEADW	ABS	TAPE6
			SQRT		
PIVØT	Subroutine	ATBØPT	ATAN2	ABS	TAPE6
			CØS		
			SIN		
			SQRT		
			TEE		
			TEL		
PRTB	Subroutine	ACNSTR	-	-	TAPE6
PRTC	Subroutine	ACNSTR	-	-	TAPE6
PRTH	Subroutine	ATBØPT	-	-	TAPE6
RTRIB	Subroutine	WTCAL	-	ABS	-
TEE	Subroutine	PIVØT	CØS	ABS	-
			SIN		
			SQRT		
TEL	Subroutine	PIVØT	CØS	ABS	-
			SIN		
			SQRT		
TEMPC	Subroutine	ACPRØG	SQRT	FLØAT	TAPE6
				INT	
WEIGH1	Subroutine	ACWMS	-	-	TAPE6
WEIGH2	Subroutine	ACWRBS	-	-	TAPE6

TABLE 64. EXTERNAL REFERENCES, OVERLAY (18,0) ROUTINES (CONCL)

Name	Type	Called By	External Reference	Inline Function	File Names
WTCAL	Subroutine	ACNSTR	BHDJT RTRIB WTPIN	ABS	-
WTPIN	Subroutine	WTCAL	-	-	-
XN	Function	ACWMS ACWRBS ACWSTR	-	INT	-

TABLE 65. EXTERNAL REFERENCES, OVERLAY (17,0) ROUTINES

Name	Type	Called By	External Reference	Inline Function	File Names
ØLAY17	Program	ØLAYOO	UNIT	-	TAPE24
			WØDATA		
CTØT	Subroutine	WVFDD	-	-	TAPE6
		WVFDD			
PINTØ	Subroutine	WVFDD	-	ABS	PUNCH
					TAPE6
PRTD	Subroutine	WØDATA	-	-	TAPE6
TBFWI	Subroutine	WØDATA	-	INT	TAPE6
TPINT	Subroutine	WFLDD	-	-	-
		WVFDD			
WFLDD	Subroutine	WØDATA	ATAN	-	PUNCH
			CTØT		TAPE6
			READMS		
			TPINT		
WØDATA	Subroutine	ØLAY17	PRTD	-	TAPE6
			READMS		
			TBFWI		
			WFLDD		
			WRITMS		
			WVFDD		
WVFDD	Subroutine	WØDATA	ALØG	ABS	TAPE6
			ATAN		
			CTØT		
			EXP		
			PINTØ		
			READMS		
			TPINT		

TABLE 66. VARIABLE REFERENCES, SUBRØUTINE WLETE

Variable Name	Size	Common Ref Loc	Variable Description			Table Ref
			Type	Used	Calc	
CCL	300	CD(51)	R	U	-	171
CCLØ	9	T(131)	R	U	-	34
CCT	300	CD(351)	R	U	-	171
CCW	50	CD(1)	R	U	C	170
CD	2000	4121	R	-	-	3
CIØY	150	T(501)	R	-	C	175
CLEI	150	CD(651)	R	C	-	174
CØSØ	6	T(146)	R	U	-	34
CTEI	150	CD(801)	R	U	-	174
D	2060	2061	R	U	-	3,8
DC	100	D(1401)	R	U	-	10
I	1	-	I	U	C	-
IP	80	/IPRINT/	I	U	-	7
N	1	-	I	U	C	-
NCASE	1	ND(60)	I	U	-	9
ND	100	6121	I	U	-	3,9
R	16	XMISC(85)	R	U	-	6
SINØ	6	T(140)	R	U	-	34
T	6220	1	R	-	-	3,34
TANØ	9	T(122)	R	U	-	34
TE	150	CD(1251)	R	U	C	183
TST	50	T(1701)	R	U	C	184
TWG	300	T(1301)	R	U	C	169
TXY	500	T(801)	R	U	-	30
TXYØ	500	T(501)	R	-	C	30
WHVID	1	T(57)	R	U	-	34
XMISC	85	/MISC/	R	-	-	6
YC	150	T(201)	R	U	C	168

TABLE 67. VARIABLE REFERENCES, SUBRØUTINE GCNTL

Variable Name	Size	Common Ref Loc	Variable Description			Table Ref
			Type	Used	Calc	
BØ2	1	T(12)	R	U	-	34
BS1Ø2	1	T(15)	R	U	-	34
CCLØ	9	T(131)	R	U	-	34
CØSØ	6	T(146)	R	U	-	34
CØTEA	1	T(152)	R	U	-	34
D	2060	2061	R	U	-	3,8
DC	100	D(1401)	R	U	-	10
I	1	ND(26)	I	U	C	9
IP	80	/IPRINT/	I	U	-	7
K	1	ND(28)	I	U	C	9
N	1	ND(27)	I	U	C	9
ND	100	6121	I	U	-	3,9
SPLE	1	T(25)	R	-		34
SPTE	1	T(26)	R	-	C	34
T	6220	1	R	-	-	3,34
TANØ	9	T(122)	R	U	-	34
TG	300	T(1001)	R	U	C	166
TGA	135	T(1851)	R	U	C	167
TGT	400	T(1301)	R	U	C	-
TT	24	T(411)	R	U	C	-
TXYØ	500	T(501)	R	-	-	30
WHVID	1	T(57)	R	U	-	34
YC	150	T(201)	R	U	-	168
YS	11	TXYØ(490)	R	U	-	30
YTB	124	TXYØ(55)	R	U	-	31,30

TABLE 68. VARIABLE REFERENCES, SUBRØUTINE LEWT

Variable Name	Size	Common Ref Loc	Variable Description			Table Ref
			Type	Used	Calc	
B/2	1	T(12)	R	U	-	34
CCI	300	CD(1651)	R	U	C	171
CCL	300	CD(51)	R	U	C	171
CCW	50	CD(1)	R	U	C	170
CD	2000	4121	R	-	-	3
D	2060	2061	R	U	-	3,8
DGWØ	1	D(105)	R	U	-	8
DHVID	1	D(289)	R	U	-	8
DINTI	12	D(1143)	R	U	-	8
DLE	30	D(1205)	R	U	-	156,8
DLEDK	50	D(1530)	R	U	-	159,8
DLED1	30	D(1500)	R	U	-	158,8
I	1	ND(26)	I	U	C	9
IP	80	/IPRINT/	I	U	-	7
K	1	ND(30)	I	U	C	9
KK	1	-	I	U	C	-
L	1	ND(28)	I	U	C	9
M	1	ND(31)	I	U	C	9
N	1	ND(27)	I	U	C	9
ND	100	6121	I	U	-	319
NN	1	-	I	U	C	-
QVL	1	D(87)	R	U	-	8
T	6220	1	R	-	-	3,34
TG	300	T(1001)	R	U	-	166
TGR	100	T(1751)	R	U	C	176
TLED	15	TGR(51)	R	U	C	176
TST	50	T(1701)	R	U	C	177

TABLE 68. VARIABLE REFERENCES, SUBROUTINE LEWT (CONCL)

Variable Name	Size	Common Ref Loc	Variable Description			Table Ref
			Type	Used	Calc	
TT	24	T(411)	R	U	C	-
TWG	400	T(1301)	R	-	C	169
ULTNZ	1	D(285)	R	U	-	8
WAREA	1	D(240)	R	U	-	8
YC	150	T(201)	R	U	-	168

TABLE 69. VARIABLE REFERENCES, SUBRØUTINE TEWT

Variable Name	Size	Common Ref Loc	Variable Description			Table Ref
			Type	Used	Calc	
CCI	300	CD(1651)	R	U	C	171
CCT	300	CD(351)	R	U	C	171
CCW	50	CD(1)	R	U	C	170
CD	2000	4121	R	U	-	3
CØSØ	6	T(146)	R	U	-	34
D	2060	2061	R	U	-	3,8
DC	100.	D(1401)	R	U	-	10
DIVID	1	D(289)	R	U	-	8
DINTI	12	D(1143)	R	U	-	8
DTE	45	D(1235)	R	U	-	157,8
I	1	ND(26)	I	U	C	9
IP	80	/IPRINT/	I	U	-	7
K	1	ND(30)	I	U	C	9
L	1	ND(28)	I	U	C	9
N	1	ND(27)	I	U	C	9
ND	100	6121	I	U	-	3,9
QVL	1	D(87)	R	U	-	8
T	6220	1	R	-	-	3,34
TE	150	CD(1251)	R	U	-	183
TG	300	T(1001)	R	U	-	166
TGR	100	T(1751)	R	U	-	180
TST	50	T(1701)	R	-	C	179
TT	24	T(411)	R	U	C	-
TTED	40	TGR(51)	R	U	C	178
YC	150	T(201)	R	U	-	168

TABLE 70. VARIABLE REFERENCES, SUBRØUTINE TEWT1

Variable Name	Size	Common Ref Loc	Variable Description			Table Ref
			Type	Used	Calc	
CC1	300	CD(1651)	R	U	C	171
CCLØ	9	T(131)	R	U	-	34
CCW	50	CD(1)	R	U	C	170
CD	2000	4121	R	-	-	3
CØSØ	6	T(146)	R	U	-	34
D	2060	2061	R	U	-	3,8
DC	100	D(1401)	R	U	-	10
DFSP	25	D(1795)	R	U	-	165,8
I	1	ND(26)	I	U	C	9
IFD	1	ND(32)	I	U	-	9
IP	80	/IPRINT/	I	U	-	7
K	1	ND(30)	I	U	C	9
KK	1	-	I	U	C	-
M	1	ND(31)	I	U	C	9
N	1	ND(27)	I	U	C	9
ND	100	6121	I	U	-	3,9
NN	1	-	I	U	C	-
QVL	1	D(87)	R	U	-	8
SINØ	6	T(140)	R	U	-	34
T	6220	1	R	-	-	3,34
TANØ	9	T(122)	R	U	-	34
TE	150	CD(1251)	R	U	C	183
TGR	100	T(1751)	R	U	C	180
TST	50	T(1701)	R	U	C	179
TT	24	T(411)	R	U	C	-
TTED	40	TGR(51)	R	U	-	178
WMVID	1	T(57)	R	U	-	34
YC	150	T(201)	R	U	-	168

TABLE 71. VARIABLE REFERENCES, SUBRØUTINE TEDEV

Variable Name	Size	Common Ref Loc	Variable Description			Table Ref
			Type	Used	Calc	
BØ2	1	T(12)	R	U	-	34
CCI	300	CD(1651)	R	U	-	171
CD	2000	4121	R	-	-	3
D	2060	2061	R	U	-	3,8
DAILK	30	D(1765)	R	U	-	164,3
DC	100	D(1401)	R	U	-	8
DELPK	20	D(1745)	R	U	-	163,8
DESP	25	D(1795)	R	U	-	165,8
DIVID	1	D(289)	R	U	-	8
DSPDK	15	D(1730)	R	U	-	162,8
DTED1	30	D(1580)	R	U	-	160,8
DTED2	120	D(1610)	R	U	-	161,8
I	1	ND(26)	I	U	C	9
IED	1	ND(32)	I	U	C	9
IEK	1	ND(33)	I	U	C	9
IP	80	/IPRINT/	I	U	-	7
K	1	ND(30)	I	U	C	9
L	1	ND(28)	I	U	C	9
M	1	ND(31)	I	U	C	9
N	1	ND(27)	I	U	-	9
ND	100	6121	I	U	-	3,9
T	6220	1	R	-	-	3,34
TGR	100	T(1751)	R	-	-	180
TST	50	T(1701)	R	U	C	179
TT	24	T(411)	R	U	C	-
TTED	40	TGR(51)	R	U	C	178
YC	150	T(231)	R	U	-	168

TABLE 72. VARIABLE REFERENCES, SUBRØUTINE LETEI

Variable Name	Size	Common Ref Loc	Variable Description			Table Ref
			Type	Used	Calc	
CCI	300	CD(1651)	R	U	C	171
CCL	300	CD(51)	R	U	-	171
CCLØ	9	T(131)	R	U	-	34
CCT	300	CD(351)	R	U	-	171
CCW	50	CD(1)	R	U	-	170
CD	2000	4121	R	-	-	3
CIØY	150	T(501)	R	-	C	175
CKD	50	CD(1951)	R	U	C	173
CLEI	150	CD(651)	R	U	C	174
CØSØ	6	T(146)	R	U	-	34
CTEI	150	CD(801)	R	U	C	174
D	2060	2061	R	U	-	3,8
DC	100	D(1401)	R	U	-	10
DKDIN	15	D(1970)	R	U	-	8
I	1	ND(26)	I	U	C	9
IK	1	ND(31)	I	U	C	9
IP	80	/IPRINT/	I	U	-	7
I1	1	-	I	U	C	-
K	1	-	I	U	C	-
KD	1	ND(30)	I	U	C	9
K2	1	-	I	U	C	-
N	1	ND(27)	I	U	C	9
NA	1	-	I	U	C	-
ND	100	6121	I	U	-	3,9
NS	1	ND(29)	I	U	C	9
N1	1	-	I	U	C	-
SINØ	6	T(140)	R	U	-	34

TABLE 72. VARIABLE REFERENCES, SUBRØUTINE LETEI (CONCL)

Variable Name	Size	Common Ref Loc	Variable Description			Table Ref
			Type	Used	Calc	
T	6220	1	R	-	-	3,34
TANØ	9	T(122)	R	U	-	34
TCS	250	CD(1401)	R	U	C	172
TFRDK	60	T(1986)	R	U	-	37
TG	300	T(1001)	R	U	-	166
TGA	135	T(1851)	R	U	-	167
TGR	100	T(1751)	R	U	C	181
TST	50	T(1701)	R	U	C	182
TWG	400	T(1301)	R	U	C	169

TABLE 73. VARIABLE REFERENCES, SUBROUTINE WCONT

Variable Name	Size	Common Ref Loc	Variable Description			Table Ref
			Type	Used	Calc	
CCDLI	150	CD(501)	R	U	C	186
CCI	300	CD(1651)	R	U	-	-
CCW	50	CD(1)	R	U	-	170
CD	2000	4121	R	-	-	3
CFL1I	150	CD(951)	R	U	-	187
CFL2I	150	CD(1101)	R	U	-	187
CMI1	150	CD(1251)	R	U	-	185
D	2060	2061	R	-	-	3,8
I	1	-	I	U	C	-
ND	100	6121	I	U	C	3,9
T	6220	1	R	-	-	3,34
TCS	250	CD(1401)	R	U	-	-
TG	300	T(1001)	R	U	-	166
TGA	135	T(1851)	R	U	-	167
TWG	400	T(1301)	R	U	C	169

TABLE 74. VARIABLE REFERENCES, SUBROUTINE MISCNT

Variable Name	Size	Common Ref Loc	Variable Description			Table Ref
			Type	Used	Calc	
B02	1	T(12)	R	U	-	34
CC1	300	CD(1651)	R	U	C	-
CCL0	9	T(131)	R	U	-	34
CD	2000	4121	R	-	-	3
CKD	50	CD(1951)	R	U	C	188
CMIT	150	CD(1251)	R	U	C	185
CØS0	6	T(146)	R	U	-	34
D	2060	2061	R	U	-	3,8
DC	100	D(1401)	R	U	-	10
DKDIN	15	D(1970)	R	U	-	8
DMWT	35	D(1820)	R	U	-	8
DTIP	15	D(1955)	R	U	-	8
I	1	ND(26)	I	U	C	9
IND	1	-	I	U	C	-
IP	80	/IPRINT/	I	U	-	7
II	1	-	I	U	C	-
K	1	ND(30)	I	U	C	9
K2	1	-	I	U	C	-
L	1	ND(28)	I	U	C	9
N	1	ND(27)	I	U	C	9
ND	100	6121	I	U	-	3,9
NP	1	-	I	U	C	-
QVL	1	D(87)	R	U	-	8
SIØX	1	TG(93)	R	U	-	166
SIN0	6	T(140)	R	U	-	34
T	6220	1	R	-	-	3,34
TAN0	9	T(122)	R	U	-	34

TABLE 74. VARIABLE REFERENCES, SUBRØUTINE MISCNT (CONCL)

Variable Name	Size	Common Ref Loc	Variable Description			Table Ref
			Type	Used	Calc	
TCS	250	CD(1401)	R	U	C	-
TG	300	T(1001)	R	U	-	166
TGR	100	T(1751)	R	U	C	-
TST	50	T(1701)	R	U	C	-
TT	24	T(411)	R	U	C	-
TVMT	250	CD(51)	R	U	C	189
TWG	400	T(1301)	R	-	C	169
YC	150	T(201)	R	U	-	168

TABLE 75. VARIABLE REFERENCES, SUBRØUTINE MISCIT

Variable Name	Size	Common Ref Loc	Variable Description			Table Ref
			Type	Used	Calc	
AC	1	T(13)	R	U	-	34
CCI	300	CD(1651)	R	U	C	-
CCLØ	9	T(131)	R	U	-	34
CCL5	1	T(93)	R	U	-	34
CD	2000	4121	R	-	-	3
CIØY	150	T(501)	R	-	C	175
CKD	50	CD(1951)	R	U	C	174
CØSØ	6	T(146)	R	U	-	34
CØTEA	1	T(152)	R	U	-	34
D	2060	2061	R	U	-	3,8
DC	100	D(1401)	R	U	-	10
DELWG	1	T(187)	R	U	-	34
DKDIN	15	D(1970)	R	U	-	8
I	1	ND(26)	I	U	C	9
IP	80	/IPRINT/	I	U	-	7
IP2	1	ND(33)	I	-	C	9
J	1	ND(29)	I	U	C	9
K	1	ND(30)	I	U	C	9
L	1	ND(28)	I	U	C	9
M	1	ND(31)	I	U	C	9
N	1	ND(27)	I	U	C	9
ND	100	6121	I	U	-	3,9
SINØ	6	T(140)	R	U	-	34
T	6220	1	R	-	-	3,34
TANØ	9	T(122)	R	U	-	34
TAN5	1	T(92)	R	U	-	34
TBD	11	TG(277)	R	U	-	166
TCS	250	T(1401)	R	U	C	-

TABLE 75. VARIABLE REFERENCES, SUBRØUTINE MISCIT (CONCL)

Variable Name	Size	Common Ref Loc	Variable Description			Table Ref
			Type	Used	Calc	
TG	300	T(1001)	R	U	-	166
TGA	135	T(1851)	R	U	-	167
TGR	100	T(1751)	R	U	C	-
TST	50	T(1701)	R	U	C	-
TT	24	T(411)	R	-	C	-
YC	150	T(201)	R	U	-	168

TABLE 76. VARIABLE REFERENCES, SUBRØUTINE CDL

Variable Name	Size	Common Ref Loc	Variable Description			Table Ref
			Type	Used	Calc	
BØ2	1	T(12)	R	U	-	34
CC1	300	CD(1651)	R	U	C	-
CCLDI	1	T(91)	R	U	-	34
CCLØ	9	T(131)	R	U	-	34
CD	2000	4121	R	-	-	3
CIØY	150	T(501)	R	U	C	175
CKD	50	CD(1951)	R	U	C	174
CØSØ	6	T(146)	R	U	-	34
D	2060	2061	R	U	-	3,8
DC	100	D(1401)	R	U	-	10
DCDL	100	D(1855)	R	U	-	8
DCDL2	15	D(1280)	R	U	-	8
DFXC	2	D(274)	R	U	-	8
I	1	ND(26)	I	U	C	9
IND	1	-	I	U	C	-
IP	80	/IPRINT/	I	U	-	7
I1	1	-	I	U	C	-
J	1	ND(29)	I	U	C	9
K	1	ND(30)	I	U	C	9
K2	1	-	I	U	C	-
L	1	ND(28)	I	U	C	9
M	1	ND(31)	I	U	C	9
N	1	ND(27)	I	U	C	9
ND	100	6121	I	U	-	3,9
N1	1	-	I	U	C	-
SINØ	6	T(140)	R	U	-	34
T	6220	1	R	-	-	3,34

TABLE 76. VARIABLE REFERENCES, SUBROUTINE CDL (CONCL)

Variable Name	Size	Common Ref Loc	Variable Description			Table Ref
			Type	Used	Calc	
TANDH	1	T(90)	R	U	-	34
TANØ	9	T(122)	R	U	-	34
TCS	250	T(1401)	R	U	C	-
TG	300	T(1001)	R	U	-	166
TGA	135	T(1851)	R	U	-	167
TGR	100	T(1751)	R	U	C	-
TT	24	T(411)	R	-	C	-
TWG	400	T(1301)	R	U	C	169
ULTLF	1	D(122)	R	U	-	8
UPNZ	1	D(285)	R	U	-	8
YC	150	T(201)	R	U	-	168

TABLE 77. VARIABLE REFERENCES, SUBRØUTINE FDIS

Variable Name	Size	Common Ref Loc	Variable Description			Table Ref
			Type	Used	Calc	
BØ2	1	T(12)	R	U	-	34
CCDLI	150	CD(501)	R	U	-	186
CCF	200	CD(651)	R	U	C	-
CCI	300	CD(1651)	R	U	C	-
CCIØ	9	T(131)	R	U	-	34
CCL5	1	T(93)	R	U	-	34
CD	2000	4121	R	-	-	3
CFL1I	150	CD(951)	R	-	C	187
CFL2I	150	CD(1101)	R	-	C	187
CIØY	150	T(501)	R	-	C	175
CØSØ	6	T(146)	R	U	-	34
CØTEA	1	T(152)	R	U	-	34
D	2060	2061	R	U	-	3,8
DC	100	D(1401)	R	U	-	10
DFL	14	D(206)	R	U	-	8
DGWØ	1	D(105)	R	U	-	8
DINTI	12	D(1143)	R	U	-	8
DKDIN	15	D(1970)	R	U	-	8
DKDWØ	1	D(144)	R	U	-	8
DLFLD	1	D(79)	R	U	-	8
DLTBX	1	T(188)	R	U	-	34
DTBZ	22	D(1121)	R	U	-	8
DTBZI	1	D(1120)	R	U	-	8
HSTMN	1	D(377)	R	U	-	8
I	1	ND(26)	I	U	C	9
IP	80	/IPRINT/	I	U	-	7
II	1	-	I	U	C	-

TABLE 77. VARIABLE REFERENCES, SUBRØUTINE FDIS (CONCL)

Variable Name	Size	Common Ref Loc	Variable Description			Table Ref
			Type	Used	Calc	
K	1	ND(30)	I	U	C	9
K2	1	-	I	U	C	-
L	1	ND(28)	I	U	C	9
M	1	ND(31)	I	U	C	9
N	1	ND(27)	I	U	C	9
NCASE	1	ND(60)	I	U	-	9
ND	100	6121	I	U	-	3,9
N1	1	-	I	U	C	-
SINØ	6	T(140)	R	U	-	34
T	6220	1	R	U	C	3,34
TANØ	9	T(122)	R	U	-	34
TAN5	1	T(92)	R	U	-	34
TBD	11	TG(277)	R	U	-	166
TCS	250	CD(1401)	R	U	C	-
TG	300	T(1001)	R	U	-	166
TGA	135	T(1851)	R	-	C	167
TST	50	T(1701)	R	U	C	-
TT	24	T(411)	R	U	C	-
TVMT	250	CD(51)	R	U	C	189
TWG	400	T(1301)	R	U	C	169
YC	150	T(201)	R	U	-	168

TABLE 78. VARIABLE REFERENCES, SUBRØUTINE PRTM

Variable Name	Size	Common Ref Loc	Variable Description			Table Ref
			Type	Used	Calc	
CCI	300	CD(1651)	R	U	-	-
CD	2000	4121	R	-	-	3
D	2060	2061	R	-	-	3,8
IP2	1	ND(33)	I	U	-	9
I1	1	-	I	U	C	-
K2	1	-	I	U	C	-
L	1	ND(28)	I	U	-	9
N	1	ND(27)	I	U	-	9
ND	100	6121	I	U	-	3,9
N1	1	-	I	U	C	-
T	6220	1	R	-	-	3,34
TCS	250	CD(1401)	R	U	-	-
TGR	100	T(1751)	R	U	-	-
TST	50	T(1701)	R	U	-	-

TABLE 79 . VARIABLE REFERENCES, SUBRØUTINE WDDATA

Variable Name	Size	Common Ref Loc	Variable Description			Table Ref
			Type	Used	Calc	
CCDLI	150	CD(501)	R	U	-	186
CCI	300	CD(1651)	R	U	-	-
CD	2000	4121	R	U	C	3
CDLM1	11	T(320)	R	-	C	190
CDLM2	11	T(353)	R	-	C	190
CDLM3	11	T(386)	R	-	C	190
CDLT1	11	T(331)	R	-	C	190
CDLT2	11	T(364)	R	-	C	190
CDLT3	LL	T(397)	R	-	C	190
CDLV1	11	T(309)	R	-	C	190
CDLV2	11	T(342)	R	-	C	190
CDLV3	11	T(375)	R	-	C	190
CIØY	150	T(501)	R	U	-	175
CLEI	150	CD(651)	R	U	-	174
CMII	150	CD(1251)	R	U	-	185
CTEI	150	CD(801)	R	U	-	174
D	2060	2061	R	U	-	3,8
DC	100	D(1401)	R	U	-	10
DCDLM	11	T(241)	R	-	C	190
DCDLT	11	T(252)	R	-	C	190
DCDLV	11	T(230)	R	-	C	190
DELWG	1	T(187)	R	U	-	34
DPCDL	10	T(220)	R	-	C	190
DTTRB	2	T(666)	R	-	C	190
DVFSRS	11	CD(1924)	R	-	C	-
DWGLE	1	T(193)	R	U	-	34
DWGTE	1	T(194)	R	U	-	34

TABLE 79. VARIABLE REFERENCES, SUBRØUTINE WDDATA (CONT)

Variable Name	Size	Common Ref Loc	Variable Description			Table Ref
			Type	Used	Calc	
DWM	11	T(609)	R	-	C	190
DWT	11	T(620)	R	-	C	190
DWV	11	T(598)	R	-	C	190
FLM1	11	T(456)	R	-	C	190
FLM2	11	T(408)	R	-	C	190
FLT1	11	T(467)	R	-	C	190
FLT2	11	T(419)	R	-	C	190
FLV1	11	T(445)	R	-	C	190
I	1	-	I	U	C	-
IP	80	/IPRINT/	I	U	-	7
K	1	-	I	U	C	-
N	1	-	I	U	C	-
ND	100	6121	I	U	-	3,9
STMM	11	T(822)	R	-	C	190
STMT	11	T(833)	R	-	C	190
STMV	11	T(811)	R	-	C	190
T	6220	1	R	U	C	3,34,190
TBCWT	11	T(789)	R	-	C	190
TBD	11	T(530)	R	U	C	190
TBFS	11	T(153)	R	U	-	34
TBRS	11	T(165)	R	U	-	34
TBW	11	T(542)	R	U	C	190
TBWPI	11	T(745)	R	-	C	190
TFLD	10	T(631)	R	-	C	190
TG	300	T(1001)	R	U	-	166
TPNLW	10	T(656)	R	-	C	190
TSEC	300	CD(1501)	R	-	C	226

TABLE 79. VARIABLE REFERENCES, SUBRØUTINE WDDATA (CONCL.)

Variable Name	Size	Common Ref Loc	Variable Description			Table Ref
			Type	Used	Calc	
TVMT	250	CD(51)	R	U	-	189
TWG	400	T(1301)	R	U	C	169
WPILE	11	T(263)	R	-	C	190
WPITE	11	T(274)	R	-	C	190
WPLLE	12	T(285)	R	-	C	190
WPLTE	12	T(297)	R	-	C	190
WPNLS	10	T(645)	R	U	C	190
WTIP	4	T(641)	R	-	C	190
XBP	11	T(489)	R	-	C	190
YBP	11	T(500)	R	-	C	190
YST	11	T(511)	R	U	C	190
YSTRC	11	TSEC(166)	R		C	226

TABLE 80. VARIABLE REFERENCES, SUBROUTINE MTLCW

Variable Name	Size	Common Ref Loc	Variable Description			Table Ref
			Type	Used	Calc	
CCSPM	1	T(200)	R	-	C	34
CCSHM	1	T(199)	R	-	C	34
CD	2000	4121	R	-	-	3
D	2060	2061	R	U	-	3,8
DMN	1	D(258)	R	U	-	8
DMTI	1	D(259)	R	U	-	8
DMTLB	19	T(201)	R	-	C	190
DMTLP	19	CD(1905)	R	-	C	-
DPVMN	1	D(196)	R	U	-	8
DPVMT	1	D(197)	R	U	-	8
DYPVT	1	D(200)	R	U	-	8
I	1	ND(31)	I	U	C	9
IF3	1	ND(92)	I	U	C	9
IP	80	/IPRINT/	I	U	-	7
MATLI	1	ND(21)	I	U	C	9
ND	100	6121	I	U	-	3,9
NMATL	1	ND(59)	I	U	-	9
NN	1	ND(26)	I	U	C	9
SDTMN	1	D(386)	R	U	C	8
T	6220	1	R	-	-	3,34,190
TM	160	T(1641)	R	U	C	-
TMD	300	T(1341)	R	U	-	-
TT	24	T(1317)	R	U	C	-
ULTLD	1	D(122)	R	U	-	8
VTID	1	D(289)	R	U	-	8

TABLE 81. VARIABLE REFERENCES, SUBROUTINE MTLFW

Variable Name	Size	Common Ref Loc	Variable Description			Table Ref
			Type	Used	Calc	
D	2060	2061	R	U	-	3,8
DC	100	D(1401)	R	U	-	10
I	1	ND(31)	I	U	C	9
K	1	ND(29)	I	U	C	9
L	1	ND(28)	I	U	C	9
MATLI	1	ND(21)	I	U	-	9
N	1	ND(30)	I	U	C	9
ND	100	6121	I	U	-	3,9
T	2060	1	R	-	-	3,34,190
TM	160	T(1641)	R	U	C	-
TMD	300	T(1341)	R	U	-	-
TT	24	T(1317)	R	U	C	-

TABLE 82. VARIABLE REFERENCES, SUBROUTINE MTLPW

Variable Name	Size	Common Ref Loc	Variable Description			Table Ref
			Type	Used	Calc	
D	2060	2061	R	-	-	3,8
I	1	ND(31)	I	U	C	9
MATLI	1	ND(21)	I	U	-	9
NCASE	1	ND(60)	I	U	-	9
ND	100	6121	I	U	-	3,9
NN	1	ND(26)	I	U	-	9
RM	16	TMD(285)	R	U	-	-
T	2060	1	R	-	-	3,34,190
TM	200	T(1641)	R	U	-	-
TMD	300	T(1341)	R	U	-	-
VTID	1	D(289)	R	U	-	8

TABLE 83. VARIABLE REFERENCES, SUBRØUTINE ALØAD

Variable Name	Size	Common Ref Loc	Variable Description			Table Ref
			Type	Used	Calc	
ALGAR	1	D(236)	R	U	-	8
ALGB1	1	D(238)	R	U	-	8
ALGS	1	D(235)	R	U	-	8
ALGTR	1	D(237)	R	U	-	8
ALNM	11	T(587)	R	U	C	190
ALNT	11	T(888)	R	U	C	190
ALNV	11	T(576)	R	U	C	190
ALPM	11	T(565)	R	U	C	190
ALPT	11	T(877)	R	U	C	190
ALPV	11	T(554)	R	U	C	190
ALREF	1	D(239)	R	U	-	8
BØ2	1	T(12)	R	U	-	34
BS1	1	T(15)	R	U	-	34
CAL1	12	D(220)	R	U	-	8
CCLØ	9	T(131)	R	U	-	34
CD	2000	4121	R	-	-	3
CKNXL	1	D(392)	R	U	-	8
CØSØ	6	T(146)	R	U	-	34
CØTEA	1	T(152)	R	U	-	34
CR	1	T(52)	R	U	-	34
CTIP	1	T(37)	R	U	-	34
D	2060	2061	R	U	-	3,8
DALCP	1	D(256)	R	U	-	8
DALV	1	D(255)	R	U	-	8
DC	100	6121	R	U	-	10
DCPCD	1	D(257)	R	U	-	8
DCPKL	1	D(233)	R	U	-	8

TABLE 83. VARIABLE REFERENCES, SUBRØUTINE ALØAD (CONT)

Variable Name	Size	Common Ref Loc	Variable Description			Table Ref
			Type	Used	Calc	
DEXPV	1	D(232)	R	U	-	8
DGWØ	1	D(105)	R	U	-	8
I	1	ND(29)	I	U	C	9
IP	80	/IPRINT/	I	U	-	7
K	1	ND(30)	I	U	C	9
L	1	-	I	U	C	-
LID	1	ND(54)	I	U	C	9
LL	1	-	I	U	C	-
N	1	ND(31)	I	U	C	9
NCASE	1	ND(60)	I	U	-	9
NCSEC	1	ND(68)	I	U	C	9
ND	100	6121	I	U	-	3,9
NN	1	-	I	U	C	-
PNZ	1	D(85)	R	U	-	8
PNZM	11	D(260)	R	U	-	8
PNZT	11	D(1019)	R	U	-	8
RATIØ	264	CD(532)	R	U	C	-
RLDS	132	CD(400)	R	U	C	-
SINØ	6	T(140)	R	U	-	34
SLD	198	CD(796)	R	U	-	-
SLDID	1	D(205)	R	U	-	8
T	2060	1	R	U	-	3,34,190
TANAC	1	T(38)	R	U	-	34
TANØ	9	T(122)	R	U	-	34
TDGW	11	T(430)	R	U	C	190
TG	300	T(1001)	R	U	-	166
TR	17	T(1300)	R	U	C	-

TABLE 83. VARIABLE REFERENCES, SUBRØUTINE ALØAD (CONCL)

Variable Name	Size	Common Ref Loc	Variable Description			Table Ref
			Type	Used	Calc	
TSEC	300	CD(1501)	R	-	-	226
TT	24	T(1317)	R	U	C	-
VNNZ	11	D(698)	R	U	-	8
VPNZ	11	D(687)	R	U	-	8
WAREA	1	D(240)	R	U	-	8
XMISC	100	/MISC/	R	U	-	6
YSTRC	11	TSEC(166)	R	U	-	226
ZNNM	11	D(709)	R	U	-	8
ZNNT	11	D(1030)	R	U	-	8
ZNZ	1	D(86)	R	U	-	8

TABLE 84. VARIABLE REFERENCES, SUBRØUTINE GJCAL

Variable Name	Size	Common Ref Loc	Variable Description			Table Ref
			Type	Used	Calc	
AC	1	TGJ(24)	R	U	-	36
ARG	1	TGJ(2)	R	U	-	36
ART	1	D(317)	R	U	-	8
ATIP	1	D(318)	R	U	-	8
BEXP	1	TGJ(9)	R	U	-	36
BPSØ2	1	TGJ(10)	R	U	-	36
BSØ2	1	TGJ(8)	R	U	-	36
BS1Ø2	1	TGJ(11)	R	U	-	36
CBI	1	TGJ(12)	R	U	-	36
CD	2000	4121	R	U	-	3
CØSEA	1	TGJ(20)	R	U	-	36
D	2060	2061	R	U	-	3,8
DBI	1	TGJ(13)	R	U	-	36
DC	100	D(1401)	R	U	-	10
DGJI	11	D(346)	R	U	-	8
DMTLB	19	T(201)	R	U	-	190
DYPVT	1	D(200)	R	U	-	8
GJFAC	1	TGJ(75)	R	U	-	36
GJKI	1	D(314)	R	U	-	8
GJKØ	1	D(316)	R	U	-	8
GJR	11	TSEC(67)	R	U	C	226
GJRQD	11	T(668)	R	U	C	190
GJRTT	11	T(668)	R	U	-	190
GJYI	1	TGJ(76)	R	U	-	36
GJYØ	1	TGJ(77)	R	U	-	36
GRT	1	DMTLB(15)	R	U	-	190
I	1	-	I	U	C	-

TABLE 84. VARIABLE REFERENCES, SUBRØUTINE GJCAL (CONT)

Variable Name	Size	Common Ref Loc	Variable Description			Table Ref
			Type	Used	Calc	
ID	1	-	I	U	C	-
IP	80	/IPRINT/	I	U	-	7
J	1	-	I	U	C	-
JJ	1	-	I	U	C	-
K	1	-	I	U	C	-
N	1	-	I	U	C	-
ND	100	6121	I	U	-	3,9
RSFS	1	TGJ(18)	R	U	-	36
SIGP	1	TGJ(16)	R	U	-	36
SINEA	1	TGJ(19)	R	U	-	36
T	2060	1	R	U	-	3,34,190
TAU	1	TGJ(17)	R	U	-	36
TBC	11	TGJ(60)	R	U	-	36
TBD	11	TGJ(49)	R	U	-	36
TBW	11	TGJ(38)	R	U	-	36
TCØM	6220	1	R	-	-	3
TCP	1	TGJ(15)	R	U	-	36
TGJ	200	T(1761)	R	U	C	36
TRP	1	TGJ(14)	R	U	-	36
TSEC	300	CD(1501)	R	-	-	226
TT	24	T(1317)	R	U	C	-
TTID	1	D(357)	R	U	-	8
TTVFG	1	D(338)	R	U	-	8
TTVFT	1	D(335)	R	U	-	8
TVF	100	T(1961)	R	U	C	192
VFDG	1	T(197)	R	U	C	34
VFDTMP	1	T(196)	R	U	C	34

TABLE 84. VARIABLE REFERENCES, SUBRØUTINE GJCAL (CONCL)

Variable Name	Size	Common Ref Loc	Variable Description			Table Ref
			Type	Used	Calc	
VFG	1	TGJ(73)	R	U	C	36
VFID	1	D(251)	R	U	-	8
VFK	1	TGJ(71)	R	U	-	36
VFQ	1	TGJ(72)	R	U	-	36
VFT	1	TGJ(74)	R	U	-	36
VTID	1	D(289)	R	U	-	8
YS	11	TGJ(27)	R	U	-	36

TABLE 85. VARIABLE REFERENCES, SUBROUTINE GJSI

Variable Name	Size	Common Ref Loc	Variable Description			Table Ref
			Type	Used	Calc	
D	2060	2061	R	U	-	3,8
I	1	-	I	U	C	-
T	2060	1	R	-	-	3,34
TVF	100	T(1961)	R	U	C	192

TABLE 86. VARIABLE REFERENCES, SUBRØUTINE GJTT

Variable Name	Size	Common Ref Loc	Variable Description			Table Ref
			Type	Used	Calc	
AMACH	1	D(336)	R	U	-	8
AR	1	TGJ(2)	R	U	-	36
ARVT	1	GJT(28)	R	U	C	-
BSØ2	1	TGJ(8)	R	U	-	36
BS1Ø2	1	TGJ(11)	R	U	-	36
CAVV	1	GJT(27)	R	U	C	-
CBI	1	TGJ(12)	R	U	-	36
CØSCØ4	1	TGJ(26)	R	U	-	36
CØSEA	1	TGJ(20)	R	U	-	36
CØS10	1	DC(38)	R	U	-	10
CTT	1	GJT(23)	R	U	C	-
CTTD1	1	GJDAT(19)	R	U	-	-
CTTD2	1	GJDAT(20)	R	U	-	-
CTTL	1	GJT(24)	R	U	C	-
CTTM	20	GJDAT(21)	R	U	-	-
CTTU	1	GJT(25)	R	U	C	-
CTT1	20	GJDAT(41)	R	U	-	-
CTT2	20	GJDAT(61)	R	U	-	-
C144	1	D(17)	R	U	-	8
D	2060	2061	R	U	-	3,8
DAVE	1	-	R	U	C	-
DBI	1	TGJ(13)	R	U	-	36
DC	100	D(1401)	R	U	-	10
DTT	1	D(310)	R	U	-	8
DX	11	GJT(1)	R	U	C	-
ESUBE	1	GJT(29)	R	U	C	-
GJDAT	100	T(1661)	R	U	-	-

TABLE 86. VARIABLE REFERENCES, SUBRØUTINE GJTT (CONT)

Variable Name	Size	Common Ref Loc	Variable Description			Table Ref
			Type	Used	Calc	
GJRTT	11	T(668)	R	U	C	190
GJT	40	T(1621)	R	-	-	-
G0	1	GJT(26)	R	U	C	-
G0FPS	1	DC(43)	R	U	-	10
I	1	-	I	U	C	-
IC	1	-	I	U	C	-
IFEXT	1	-	I	U	C	-
IP	80	/IPRINT/	I	U	-	7
J	1	-	I	U	C	-
K	1	-	I	U	C	-
N	1	-	I	U	C	-
NCASE	1	ND(60)	I	U	-	9
ND	100	6121	I	U	-	3,9
NP	1	-	I	U	C	-
N1	1	ND(1)	I	U	-	9
N11	1	ND(11)	I	U	-	9
N12	1	ND(12)	I	U	-	9
N2	1	ND(2)	I	U	-	9
PC	1	GJDAT(18)	R	U	-	-
PT4	1	DC(36)	R	U	-	10
PT7	1	DC(37)	R	U	-	10
PT8	1	DC(35)	R	U	-	10
Q	1	D(337)	R	U	-	8
RSFS	1	TGJ(18)	R	U	-	36
SINEA	1	TGJ(19)	R	U	-	36
SIN10	1	DC(39)	R	U	-	10
SØA	11	GJT(12)	R	U	C	-

TABLE 86. VARIABLE REFERENCES, SUBRØUTINE GJTT (CONCL)

Variable Name	Size	Common Ref Loc	Variable Description			Table Ref
			Type	Used	Calc	
T	2060	TCØM(1)	R	-	-	3,34,190
TBD	11	TGJ(49)	R	U	-	36
TBW	11	TGJ(38)	R	U	-	36
TCØM	6220	1	R	-	-	3
TEMP	1	GJT(30)	R	U	C	-
TEMP2	1	GJT(31)	R	U	C	-
TGJ	200	T(1761)	R	-	-	36
TRP	1	TGJ(14)	R	U	-	36
TTJFC	1	D(339)	R	U	-	8
VTK	1	DC(44)	R	U	-	10
WAVE	1	-	R	U	C	-
YIHT	1	D(360)	R	U	-	8
YST	11	TGJ(78)	R	U	-	36

TABLE 87. VARIABLE REFERENCES, SUBRØUTINE CNSTC

Variable Name	Size	Common Ref Loc	Variable Description			Table Ref
			Type	Used	Calc	
BMAX	1	D(381)	R	U	C	8
BMIN	1	D(380)	R	U	C	8
CCRSF	1	TSEC(253)	R	U	C	226
CCRSH	1	TSEC(252)	R	U	C	226
CCSFM	1	T(200)	R	U	-	34
CCSHM	1	T(199)	R	U	-	34
CD	2000	4121	R	-	-	3
CKGR	1	D(402)	R	U	-	8
CKLR	1	D(401)	R	U	-	8
CKNXL	1	D(392)	R	U	C	8
CKSK	1	D(362)	R	U	-	8
CKSTI	1	D(363)	R	U	-	8
CKSTZ	1	D(364)	R	U	-	8
CNSID	1	D(461)	R	U	-	8
CØNTC	1	D(367)	R	U	-	8
CØSØ	6	T(146)	R	U	-	34
D	2060	2061	R	U	-	3,8
DBRHØ	1	D(464)	R	U	-	8
DC	100	D(1401)	R	U	-	10
DCCSF	1	D(409)	R	U	-	8
DCCSH	1	D(408)	R	U	-	8
DCRHØ	1	D(463)	R	U	-	8
DEL	30	TWT(251)	R	U	C	230
DINS	1	D(465)	R	U	-	8
DINSL	1	D(467)	R	U	-	8
DLTB	30	D(600)	R	U	-	8
DMTLB	17	T(201)	R	U	-	190

TABLE 87. VARIABLE REFERENCES, SUBRØUTINE CNSTC (CONT)

Variable Name	Size	Common Ref Loc	Variable Description			Table Ref
			Type	Used	Calc	
DSPLI	8	D(1490)	R	U	-	8
DSTIE	8	D(521)	R	U	-	8
DTC	1	D(462)	R	U	-	8
DTCL	1	D(466)	R	U	-	8
DVFID	1	D(368)	R	U	-	8
EBASC	1	D(450)	R	U	-	8
EFLWR	1	D(391)	R	U	-	8
ELWR	1	D(389)	R	U	-	8
ERT	1	DMTLB(14)	R	U	-	190
GBASC	1	D(451)	R	U	-	8
GFSRT	2	D(453)	R	U	-	8
GLWRT	1	D(452)	R	U	-	8
GRT	1	DMTLB(15)	R	U	-	190
HSTMN	1	D(377)	R	U	-	8
I	1	ND(31)	I	U	C	9
ICD	1	ND(49)	I	-	C	9
ISC	1	ND(22)	I	U	C	9
IVFJT	1	ND(53)	I	-	C	9
J	1	ND(30)	I	U	C	9
ND	100	6121	I	U	-	3,9
PI	1	D(15)	R	U	-	8
RHØL	1	D(390)	R	U	-	8
SDBRU	1	DMTLB(17)	R	U	-	190
SDCMX	1	D(385)	R	U	-	8
SDFCL	1	D(388)	R	U	-	8
SDFP	1	DMTLB(13)	R	U	-	190
SDFSU	1	DMTLB(16)	R	U	-	190

TABLE 87. VARIABLE REFERENCES, SUBRØUTINE CNSTC (CONCL)

Variable Name	Size	Common Ref Loc	Variable Description			Table Ref
			Type	Used	Calc	
SDFTU	1	D(398)	R	U	-	8
SDFY	1	DMTLB(6)	R	U	-	190
SDMU	1	DMTLB(2)	R	U	-	190
SDRHØ	1	TWT(175)	R	U	C	230
SDSMX	1	D(387)	R	U	-	8
SDTMX	1	D(386)	R	U	-	8
SDTU	1	DMTLB(12)	R	U	-	190
SDTY	1	DMTLB(10)	R	U	-	190
SFSRS	2	D(412)	R	U	-	8
SINØ	6	T(140)	R	U	-	34
SKKMN	1	D(365)	R	U	-	8
SKKMX	1	D(366)	R	U	-	8
SKMN	1	D(370)	R	U	-	8
SKMNL	1	D(394)	R	U	C	8
SNMIN	1	D(382)	R	U	C	8
STFMN	1	D(384)	R	U	-	8
STRCN	1	D(383)	R	U	-	8
STRFN	1	D(361)	R	U	-	8
SWBE	2	D(416)	R	U	-	8
SWRHØ	2	D(414)	R	U	-	8
T	2060	1	R	-	-	3,34
TDC	200	T(1341)	R	U	C	224
TKKMN	1	TDC(64)	R	U	C	224
TKKMX	1	TDC(65)	R	-	C	224
TKMNL	1	D(395)	R	U	C	8
TSEC	300	CD(1501)	R	U	C	226
TWT	400	CD(1101)	R	U	C	230

TABLE 88. VARIABLE REFERENCES, SUBRØUTINE ABDW

Variable Name	Size	Common Ref Loc	Variable Description			Table Ref
			Type	Used	Calc	
BS1Ø2	1	T(15)	R	U	-	34
CD	2000	4121	R	-	-	3
CDLK1	1	TDGW(13)	R	U	C	190
CDLK2	1	TDGW(14)	R	U	C	190
CDLK3	1	TDGW(15)	R	U	C	190
CDLM1	11	T(320)	R	U	-	190
CDLM2	11	T(353)	R	U	-	190
CDLM3	11	T(386)	R	U	-	190
CDLT1	11	T(331)	R	U	-	190
CDLT2	11	T(364)	R	U	-	190
CDLT3	11	T(397)	R	U	-	190
CDLV1	11	T(309)	R	U	-	190
CDLV2	11	T(342)	R	U	-	190
CDLV3	11	T(375)	R	U	-	190
CØSØ	6	T(146)	R	U	-	34
D	2060	2061	R	U	-	3,8
DC	100	D(1401)	R	U	-	10
DCDL1	8	D(167)	R	U	-	8
DDWK	1	TDGW(3)	R	-	C	190
DFLD1	8	D(159)	R	U	-	8
DGWI	1	T(22)	R	-	C	34
DGWØ	1	D(105)	R	U	-	8
DGWR	1	TDGW(2)	R	-	C	190
DLFL	4	D(94)	R	U	-	8
DWID	1	D(110)	R	U	-	8
DWM	11	T(609)	R	U	-	190
DWT	11	T(620)	R	U	-	190

TABLE 88. VARIABLE REFERENCES, SUBRØUTINE ABDW (CONT)

Variable Name	Size	Common Ref Loc	Variable Description			Table Ref
			Type	Used	Calc	
DWV	11	T(598)	R	U	-	190
FLM1	11	T(456)	R	U	-	190
FLM2	11	T(408)	R	U	-	190
FLT1	11	T(467)	R	U	-	190
FLT2	11	T(419)	R	U	-	190
FLV1	11	T(445)	R	U	-	190
FLV2	11	T(478)	R	U	-	190
I	1	ND(30)	I	U	C	9
IP	80	/IPRINT/	I	U	-	7
LID	1	ND(54)	I	U	-	9
N	1	ND(31)	I	U	C	9
NCASE	1	ND(60)	I	U	-	9
ND	100	6121	I	-	-	3,9
RFDGW	8	T(522)	R	U	C	190
RFL1	1	TDGW(11)	R	U	C	190
RFL2	1	TDGW(12)	R	U	C	190
SDWM	11	T(855)	R	U	C	190
SDWT	11	T(866)	R	U	C	190
SDWV	11	T(844)	R	U	C	190
SINØ	6	T(140)	R	U	-	34
STMM	11	T(822)	R	U	-	190
STMT	11	T(833)	R	U	-	190
STMV	11	T(811)	R	U	-	190
T	6220	1	R	-	-	3,34,190
TBXK	1	TDGW(4)	R	-	C	190
TDGW	16	T(430)	R	-	-	190
TFLD	10	T(631)	R	U	-	190

TABLE 88. VARIABLE REFERENCES, SUBRØUTINE ABDW (CONCL)

Variable Name	Size	Common Ref Loc	Variable Description			Table Ref
			Type	Used	Calc	
TSEC	300	CD(1501)	R	-	-	226
TSS	100	T(1961)	R	U	C	-
TT	24	T(1317)	R	U	C	-
VTID	1	D(289)	R	U	-	8
WFL	3	T(97)	R	-	C	34

TABLE 89. VARIABLE REFERENCES, SUBROUTINE YBSET

Variable Name	Size	Common Ref Loc	Variable Description			Table Ref
			Type	Used	Calc	
BMAX	1	D(381)	R	U	-	8
BMIN	1	D(380)		U	-	8
CD	2060	4121		-	-	3
CNSID	1	D(461)		U	-	8
D	2060	2061		U	-	3,8
DBMII	11	T(712)		U	C	190
DC	100	C(1401)		U	-	10
DEFFI	11	T(800)		U	C	190
DINS	1	D(465)		U	-	8
DINSL	1	D(467)		U	-	8
DNXII	11	T(723)		U	C	190
DNXU	11	D(931)		U	-	8
DTC	1	D(462)		U	-	8
DTCL	1	D(466)		U	-	8
DWM	11	T(609)		U	-	190
DWMII	11	T(701)		-	C	190
DYBDP	1	D(117)		U	-	8
DYBKP	1	D(116)		U	-	8
DYBKS	1	D(115)		U	-	8
DYBL	11	D(1041)		U	-	8
DYBU	11	D(997)		U	-	8
FCMAX	1	TDC(46)		U	-	224
FTMAX	1	TDC(60)		U	-	224
HSTMN	1	D(377)	R	U	-	8
I	1	ND(28)	I	U	C	9
J	1	ND(27)	I	U	C	9
K	1	ND(29)	I	U	C	9

TABLE 89. VARIABLE REFERENCES, SUBROUTINE YBSET (CONCL)

Variable Name	Size	Common Ref Loc	Variable Description			Table Ref
			Type	Used	Calc	
N	1	ND(30)	I	U	C	9
ND	100	6121	I	U	-	3,9
SKMN	1	D(370)	R	U	-	8
SKMNL	1	D(394)	R	U	-	8
SLCFS	5	D(1470)	R	U	-	8
SNMIN	1	D(382)	R	U	-	8
STFMN	1	D(384)	R	U	-	8
STFMX	1	D(379)	R	U	-	8
STRMN	1	D(371)	R	U	-	8
T	2060	1	R	-	-	3,34,190
TBD	11	T(530)	R	U	-	190
TBW	11	T(542)	R	U	-	190
TDC	200	T(1341)	R	-	-	224
TKKMX	1	TDC(65)	R	U	-	224
TSEC	300	CD(1501)	R	-	-	224
TT	24	T(1317)	R	U	C	-
ULTPM	11	TSEC(1)	R	U	-	226
VTID	1	D(289)	R	U	-	8
YBLD	11	T(690)	R	-	C	190
YBLI	11	TSEC(188)	R	U	C	226
YBUD	11	T(679)	R	-	C	190
YBUI	11	TSEC(133)	R	U	C	226

TABLE 90. VARIABLE REFERENCES, SUBRØUTINE PRØG

Variable Name	Size	Common Ref Loc	Variable Description			Table Ref
			Type	Used	Calc	
ACVFDE	11	CD(1938)	R	U	C	-
ACVFDG	11	CD(1949)	R	U	C	-
CD	2000	4121	R	U	-	3
CDLK1	1	TDGW(13)	R	U	C	190
CDLK2	1	TDGW(14)	R	U	C	190
CDLK3	1	TDGW(15)	R	U	C	190
CDLM1	11	T(320)	R	U	-	190
CDLM2	11	T(353)	R	U	-	190
CDLM3	11	T(386)	R	U	-	190
CDLT1	11	T(331)	R	U	-	190
CDLT2	11	T(364)	R	U	-	190
CDLT3	11	T(397)	R	U	-	190
CDLV1	11	T(309)	R	U	-	190
CDLV2	11	T(342)	R	U	-	190
CDLV3	11	T(375)	R	U	-	190
CTBW	150	T(1541)	R	U	C	193
D	2060	2061	R	U	C	3,8
DBMII	11	T(712)	R	U	C	190
DC	100	D(1401)	R	U	-	10
DCBST	11	D(765)	R	U	C	8
DCDL1	8	D(167)	R	U	-	8
DCNØS	11	D(776)	R	U	C	8
DCNST3	22	D(1301)	R	U	-	8
DEFFI	11	T(800)	R	U	C	190
DEVF	1	CD(1935)	R	U	C	-
DGVF	1	CD(1936)	R	U	C	-
DGW	3	D(102)	R	U	-	8

TABLE 90. VARIABLE REFERENCES, SUBRØUTINE PRØG (CONT)

Variable Name	Size	Common Ref Loc	Variable Description			Table Ref
			Type	Used	Calc	
DGWI	1	T(22)	R	U	C	34
DGWØ	1	D(105)	R	U	-	8
DGWR	1	TDGW(2)	R	U	C	190
DGWRI	1	TDGW(1)	R	-	C	190
DKVL	1	D(234)	R	U	-	8
DNXII	11	T(723)	R	U	C	190
DØPT	1	D(1365)	R	U	-	8
DPCDL	10	T(220)	R	U	-	190
DRHØØ	1	CD(1937)	R	U	C	-
DWM	11	T(609)	R	U	C	190
DWMII	11	T(701)	R	U	C	190
DWNØ	1	D(369)	R	U	-	8
DWV	11	T(598)	R	U	C	190
FLM1	11	T(456)	R	U	-	190
FLM2	11	T(408)	R	U	-	190
FLT1	11	T(467)	R	U	-	190
FLT2	11	T(419)	R	U	-	190
FLV1	11	T(445)	R	U	-	190
FLV2	11	T(478)	R	U	-	190
I	1	ND(28)	I	U	C	9
ICD	1	ND(49)	I	U	C	9
IF4	1	ND(93)	I	U	C	9
IF8	1	ND(97)	I	U	C	9
IGT	1	ND(57)	I	-	C	9
IGW	1	ND(61)	I	U	C	9
IØPC	1	ND(84)	I	U	C	9
IØPI	1	ND(74)	I	U	-	9

TABLE 90. VARIABLE REFERENCES, SUBRØUTINE PRØG (CONT)

Variable Name	Size	Common Ref Loc	Variable Description			Table Ref
			Type	Used	Calc	
IØPS	1	ND(83)	I	U	C	9
IØP1	1	ND(82)	I	U	C	9
ISC	1	ND(22)	I	U	C	9
K	1	ND(29)	I	-	C	9
N	1	ND(27)	I	U	C	9
ND	100	6121	I	U	-	3,9
NDWP	1	ND(25)	I	U	C	9
NØDW	1	ND(56	I	U	C	9
RFDGW	8	T(522)	R	U	-	190
RFL1	1	TDGW(11)	R	U	C	190
RFL2	1	TDGW(12)	R	U	C	190
SDRHØ	1	TWT(175)	R	U	-	230
SDWM	11	T(855)	R	-	C	190
SDWT	11	T(866)	R	-	C	190
SDWV	11	T(844)	R	-	C	190
STMM	11	T(822)	R	U	-	190
STMT	11	T(833)	R	U	-	190
STMV	11	T(811)	R	U	-	190
SWT	11	T(734)	R	U	-	190
T	2060	1	R	-	-	3,34,190
TBCWT	11	T(789)	R	U	C	190
TBWPI	11	T(745)	R	U	C	190
TCNST	8	CD(1960)	R	U	C	-
TDGW	15	T(430)	R	-	-	190
TMWPI	11	T(778)	R	U	C	190
TØGW	3	D(80)	R	U	-	8
TPNLW	11	T(656)	R	U	C	190

TABLE 90. VARIABLE REFERENCES, SUBRØUTINE PRØG (CONCL)

Variable Name	Size	Common Ref Loc	Variable Description			Table Ref
			Type	Used	Calc	
TSC	420	T(1541)	R	U	C	-
TSEC	300	CD(1501)	R	-	-	226
TWT	400	CD(1101)	R	-	C	230
ULTPM	11	TSEC((1)	R	U	-	226
VFWPI	11	T(756)	R	U	C	190
WPNLS	11	T(645)	R	U	C	190
XMISC	100	/MISC/	R	U	C	6
YBLD	11	T(690)	R	U	C	190
YBLI	11	TSEC(188)	R	U	C	226
YBUD	11	T(679)	R	U	C	190
YBUI	11	TSEC(133)	R	U	C	226

TABLE 91. VARIABLE REFERENCES, SUBROUTINE DEADW

Variable Name	Size	Common Ref Loc	Variable Description			Table Ref
			Type	Used	Calc	
CCLDX	1	T(88)	R	U	-	34
CD	2000	4121	R	-	-	3
D	2060	2061	R	U	-	3,8
DC	100	D(1401)	R	U	-	10
DCDLM	11	T(241)	R	U	-	190
DCDLT	11	T(252)	R	U	-	190
DCDLV	11	T(230)	R	U	-	190
DELWG	1	T(187)	R	U	-	34
DGWI	1	T(22)	R	U	-	34
DWM	11	T(609)	R	U	C	190
DWT	11	T(620)	R	U	C	190
DWV	11	T(598)	R	U	C	190
I	1	ND(30)	I	U	C	9
IGW	1	ND(61)	I	U	-	9
IP	80	/IPRINT/	I	U	-	7
K	1	ND(29)	I	U	-	9
N	1	ND(31)	I	U	-	9
NCASE	1	ND(60)	I	U	-	9
ND	100	6121	I	U	-	3,9
NØDW	1	ND(56)	I	U	-	9
T	2060	1	R	U	-	3,34,190
TANDX	1	T(87)	R	U	-	34
TBCWT	11	T(789)	R	U	-	190
TBWPI	11	T(745)	R	U	-	190
TDWPI	11	T(767)	R	U	-	190
TMWPI	11	T(778)	R	U	-	190
TPNLW	11	T(656)	R	U	-	190

TABLE 91. VARIABLE REFERENCES, SUBROUTINE DEADW (CONCL)

Variable Name	Size	Common Ref Loc	Variable Description			Table Ref
			Type	Used	Calc	
TSEC	300	CD(1501)	R	-	-	226
TT	24	T(1317)	R	U	C	-
VFWPI	11	T(756)	R	U	-	190
WPNLS	11	T(645)	R	U	-	190
YSTRC	11	TSEC(166)	R	U	-	226

TABLE 92. VARIABLE REFERENCES, SUBROUTINE DWYBA

Variable Name	Size	Common Ref Loc	Variable Description			Table Ref
			Type	Used	Calc	
ALPM	11	T(565)	R	U	-	190
CD	2000	4121	R	-	-	3
D	2060	2061	R	U	-	318
DBMII	11	T(712)	R	U	C	190
DC	100	D(1401)	R	-	-	10
DEFFI	11	T(800)	R	U	C	190
DGWI	1	T(22)	R	U	-	34
DGWRI	1	TDGW(1)	R	U	-	190
DKDW3	1	D(113)	R	U	-	8
DKYB1	1	D(114)	R	U	-	8
DLTBX	1	T(188)	R	U	-	34
DMISC	1	T(191)	R	U	-	34
DNXII	11	T(723)	R	U	-	190
DWM	11	T(609)	R	U	-	190
DWMII	11	T(701)	R	U	-	190
IGW	1	ND(61)	I	U	-	9
IP	80	/IPRINT/	I	U	-	7
J	1	ND(26)	I	U	C	9
K	1	ND(29)	I	-	C	9
L	1	ND(27)	I	U	C	9
M	1	ND(28)	I	U	C	9
NCASE	1	ND(60)	I	U	-	9
ND	100	6121	I	U	-	3,9
NØDW	1	ND(56)	I	U	-	9
RLDS	132	CD(400)	R	U	-	-
T	2060	1	R	-	-	3,34,190
TBCWT	11	T(789)	R	U	C	190

TABLE 92. VARIABLE REFERENCES, SUBRØUTINE DWYBA (CONCL)

Variable Name	Size	Common Ref Loc	Variable Description			Table Ref
			Type	Used	Calc	
TBD	11	T(530)	R	U	-	190
TBWPI	11	T(745)	R	U	-	190
TDGW	11	T(430)	R	-	-	190
TDWPI	11	T(767)	R	U	C	190
TR	17	T(1300)	R	U	C	-
TSEC	300	CD(1501)	R	-	-	226
ULTLF	1	D(122)	R	U	-	8
UPNZ	1	D(285)	R	U	-	8
VAR	1	-	R	U	C	-
VFWPI	11	T(756)	R	U	-	190
YBLD	11	T(690)	R	U	-	190
YBLI	11	TSEC(188)	R	U	C	226
YBUD	11	T(679)	R	U	-	190
YBUI	11	TSEC(133)	R	U	C	226

TABLE 93. VARIABLE REFERENCES, SUBRØUTINE VLØAD

Variable Name	Size	Common Ref Loc	Variable Description			Table Ref
			Type	Used	Calc	
ALNM	11	T(587)	R	U	-	190
ALNT	11	T(888)	R	U	-	190
ALNV	11	T(576)	R	U	-	190
ALPM	11	T(565)	R	U	-	190
ALPT	11	T(877)	R	U	-	190
ALPV	11	T(554)	R	U	-	190
AUNNZ	1	—	R	U	C	-
AUPNZ	1	—	R	U	C	-
CD	2000	4121	R	-	-	3
D	2060	2061	R	U	-	3,8
DC	100	D(1401)	R	U	-	10
DDWK	1	TDGW(3)	R	U	-	190
DGWI	1	T(22)	R	U	-	34
DGWR	1	TDGW(2)	R	U	-	190
DVFS	11	D(842)	R	U	-	8
DVFSRS	11	CD(1924)	R	U	-	-
DVRS	11	D(853)	R	U	-	8
DWM	11	T(609)	R	U	-	190
DWT	11	T(620)	R	U	-	190
DWV	11	T(598)	R	U	-	190
GJRQD	11	T(668)	R	U	-	190
I	1	—	I	-	C	-
IGW	1	ND(61)	I	U	-	9
IØP1	1	ND(82)	I	U	-	9
IP	80	/IPRINT/	I	U	-	7
K	1	ND(31)	I	U	C	9
LID	1	ND(54)	I	U	-	9

TABLE 93. VARIABLE REFERENCES, SUBRØUTINE VLØAD (CONT)

Variable Name	Size	Common Ref Loc	Variable Description			Table Ref
			Type	Used	Calc	
N	1	ND(30)	I	U	C	9
NCASE	1	ND(60)	I	U	-	9
ND	100	6121	I	U	-	3,9
NØDW	1	ND(56)	I	U	-	9
RLDS	132	CD(400)	R	U	-	-
SAVE	1	—	R	U	C	-
SDWM	11	T(855)	R	U	-	190
SDWT	11	T(866)	R	U	-	190
SDWV	11	T(844)	R	U	-	190
STMM	11	T(822)	R	U	-	190
STMT	11	T(833)	R	U	-	190
STMV	11	T(811)	R	U	-	190
T	2060	1	R	-	-	3,34,190
TBXK	1	TDGW(4)	R	U	-	190
TDGW	11	T(430)	R	-	-	190
TDWM	11	CD(1979)	R	-	C	-
TDWT	11	CD(1990)	R	-	C	-
TDWV	11	CD(1968)	R	-	C	-
TSEC	300	CD(1501)	R	-	-	226
TT	24	T(1317)	R	U	C	-
TT1	1	—	R	U	C	-
TT2	1	—	R	U	C	-
TT7	1	—	R	U	C	-
ULTLF	1	D(122)	R	U	-	8
ULTNM	11	TSEC(122)	R	U	C	226
ULTNT	11	TSEC(155)	R	U	C	226
ULTNV	11	TSEC(111)	R	U	C	226

TABLE 93. VARIABLE REFERENCES, SUBRØUTINE VLØAD (CONCL)

Variable Name	Size	Common Ref Loc	Variable Description			Table Ref
			Type	Used	Calc	
ULTPM	11	TSEC(1)	R	U	C	226
ULTPT	11	TSEC(144)	R	U	C	226
ULTPV	11	TSEC(12)	R	U	C	226
UNNZ	1	D(286)	R	U	C	8
UPNZ	1	D(285)	R	U	C	8
UVFS	11	TSEC(23)	R	-	C	226
UVRS	11	TSEC(34)	R	-	C	226
XMISC	100	/MISC/	R	U	-	6

TABLE 94. VARIABLE REFERENCES, SUBRØUTINE TBØPT

Variable Name	Size	Common Ref Loc	Variable Description			Table Ref
			Type	Used	Calc	
CD	2000	4121	R	U	C	3
CNSID	1	D(461)	R	U	-	8
D	2060	2061	R	U	C	3,8
DC	100	D(1401)	R	U	-	10
DCBST	11	D(765)	R	-	C	8
DCNØS	11	D(776)	R	-	C	8
DEFFI	11	T(800)	R	-	C	190
DELWG	1	T(187)	R	U	-	34
DLCS	24	D(482)	R	U	-	8
DNXII	11	T(723)	R	-	C	190
DØPTJ	1	D(1366)	R	U	-	8
DØP2	3	D(1367)	R	U	-	8
DØP3	3	D(1371)	R	U	-	8
DYPVT	1	D(200)	R	U	-	8
I	1	ND(29)	I	U	C	9
ICD	1	ND(49)	I	-	C	9
IF4	1	ND(93)	I	U	C	9
IGT	1	ND(57)	I	U	-	9
IGW	1	ND(61)	I	U	C	9
IØPD	1	ND(75)	I	U	C	9
IØPI	1	ND(74)	I	U	C	9
IØPJ	1	ND(80)	I	U	C	9
IØPP	1	ND(81)	I	U	C	9
IØPT	1	ND(73)	I	U	C	9
IØP1	1	ND(82)	I	U	C	9
IP	80	/IPRINT/	I	U	-	9
IPA	1	ND(23)	I	U	C	9

TABLE 94. VARIABLE REFERENCES, SUBRØUTINE TBØPT (CONCL)

Variable Name	Size	Common Ref Loc	Variable Description			Table Ref
			Type	Used	Calc	
IPB	1	ND(24)	I	-	C	9
ISC	1	ND(22)	I	-	C	9
N	1	ND(31)	I	U	C	9
ND	100	6121	I	U	C	3,9
NØDW	1	ND(56)	I	U	-	9
SWT	11	T(734)	R	-	C	190
T	2060	1	R	-	-	3,34,190
TBCWT	11	T(789)	R	-	C	190
TBW	11	T(541)	R	U	-	190
TBWPI	11	T(745)	R	-	C	190
TC	400	T(960)	R	U	C	-
TMWPI	11	T(778)	R	-	C	190
TØ	40	T(920)	R	U	C	237
TPNLW	11	T(656)	R	-	C	190
TSC	420	T(1541)	R	U	C	225
TSEC	300	CD(1501)	R	-	-	226
TSS	100	T(1961)	R	U	C	236
TT	24	T(1317)	R	U	C	-
TW	900	6221	R	U	C	3
TWT	400	CD(1101)	R	U	C	230,233
VFWPI	11	T(756)	R	-	C	190
WHVID	1	T(57)	R	U	-	34
WPNLS	11	T(645)	R	-	C	190
XMISC	100	/MISC/	R	U	C	6
YBLD	11	T(690)	R	-	C	190
YBUD	11	T(679)	R	-	C	190
YSTRC	11	TSEC(166)	R	U	-	226

TABLE 95. VARIABLE REFERENCES, SUBRØUTINE CSECW

Variable Name	Size	Common Ref Loc	Variable Description			Table Ref
			Type	Used	Calc	
CD	2000	4121	R	-	-	3
CSDEL	1	D(481)	R	U	-	8
CSSPN	1	D(246)	R	U	-	8
CSWD	1	D(480)	R	U	-	8
D	2060	2061	R	U	-	3,8
DC	100	D(1401)	R	U	-	10
DELCS	28	D(482)	R	U	-	8
DELTB	30	TWT(251)	R	U	-	230
DLCLR	4	D(502)	R	U	-	8
DLRRC	1	DELTB(22)	R	U	-	230
DLRRW	1	DELTB(23)	R	U	-	230
DMISC	1	T(191)	R	U	-	34
I	1	ND(31)	I	U	C	9
J	1	ND(30)	I	U	C	9
K	1	ND(29)	I	U	C	9
L	1	ND(28)	I	U	C	9
ND	100	6121	I	U	-	3,9
SDRHØ	1	TWT(175)	R	U	-	230
T	2060	1	R	U	-	3,34
TCØM	7137	1	R	-	-	3
TDC	200	T(1341)	R	U	-	224
TSS	100	T(1961)	R	U	C	232
TW	900	6221	R	U	C	3
TWT	400	CD(1101)	R	U	C	230
WCSEC	1	T(5)	R	U	-	34

TABLE 96. VARIABLE REFERENCES, SUBRØUTINE PIVØT

Variable Name	Size	Common Ref Loc	Variable Description			Table Ref
			Type	Used	Calc	
AC	1	D(124)	R	U	-	8
ANS	5	S(95)	R	-	C	235
ARM	1	PT(3)	R	U	C	234
BLEA	1	T(81)	R	U	-	34
BØ2	1	T(12)	R	U	-	34
CD	2000	4121	R	-	-	3
CKA	1	D(192)	R	U	-	8
CKB	1	D(193)	R	U	-	8
CKC	1	D(194)	R	U	-	8
CKEC	1	PT(2)	R	U	C	234
COSDTH	1	PT(40)	R	U	C	234
CØSEA	1	COSO(3)	R	U	-	34
CØSØ	6	T(146)	R	U	-	34
CPVT	1	T(45)	R	U	-	34
CR	1	T(52)	R	U	-	34
D	2060	2061	R	U	-	3,8
DEPTH	1	D(186)	R	U	-	8
DGW	3	D(102)	R	U	-	8
DMTLP	19	CD(1905)	R	-	-	-
DN	1	D(199)	R	U	-	8
DNNZ	1	T(21)	R	U	-	34
DØT	1	PT(55)	R	U	C	234
DPNZ	1	T(20)	R	U	-	34
DP1	1	D(156)	R	U	-	8
DP2	1	D(157)	R	U	-	8
DSAVE	1	—	R	U	C	-
DTH	1	PT(38)	R	U	C	234

TABLE 96. VARIABLE REFERENCES, SUBRØUTINE PIVØT (CONT)

Variable Name	Size	Common Ref Loc	Variable Description			Table Ref
			Type	Used	Calc	
DXPVT	1	PT(5)	R	U	C	234
DYPVT	1	D(200)	R	U	-	8
D1	1	D(1)	R	U	-	8
D2	1	D(2)	R	U	-	8
D3	1	D(4)	R	U	-	8
EC	1	DMTLP(5)	R	U	-	-
EDIST	1	PT(69)	R	U	-	234
EØD	1	PT(54)	R	U	-	234
FBR	1	D(195)	R	U	-	8
FSLØC	1	D(125)	R	U	-	8
FSU	1	DMTLP(16)	R	U	-	-
FTU	1	DMTLP(12)	R	U	-	-
F1MTR	1	T(77)	R	U	-	34
F1MTRS	1	T(78)	R	U	-	34
I	1	—	I	U	C	-
IGW	1	ND(57)	I	U	-	9
IP	80	/IPRINT/	I	U	-	7
NCASE	1	ND(60)	I	U	-	9
ND	100	6121	I	-	-	3,9
NK	1	—	I	U	C	-
ØD	1	PT(66)	R	U	C	234
ØDPVT	1	D(198)	R	U	-	8
PERFTU	1	D(189)	R	U	-	8
PI	1	D(15)	R	U	-	8
PT	100	T(901)	R	U	C	234
PVTD	1	PT(10)	R	U	C	234
PVTM	1	PT(9)	R	U	C	234

TABLE 96. VARIABLE REFERENCES, SUBRØUTINE PIVØT (CONT)

Variable Name	Size	Common Ref Loc	Variable Description			Table Ref
			Type	Used	Calc	
PVTV	1	PT(8)	R	U	C	234
RATFSU	1	D(190)	R	U	-	8
RHØ	1	DMTLP(11)	R	U	-	-
RHØPIN	1	D(191)	R	U	-	8
RSLØC	1	D(126)	R	U	-	8
S	200	T(1001)	R	U	C	235
SINDTH	1	PT(39)	R	U	C	234
SINØ	6	T(140)	R	U	-	34
SØD	1	PT(56)	R	U	C	234
SPAN	1	PT(100)	R	U	C	234
T	2060	1	R	U	-	3,34
TANØ	9	T(122)	R	U	-	34
TCØM	7137	1	R	U	-	3
THPAFT	1	D(203)	R	U	-	8
THPFWD	1	D(202)	R	U	-	8
TØGW	3	D(80)	R	U	-	8
TSEC	300	CD(1501)	R	-	-	226
TW	900	6221	R	-	-	3
ULTPM	11	TSEC(1)	R	U	-	226
ULTPV	11	TSEC(12)	R	U	-	226
WINB	1	—	R	U	C	-
WOUT	1	—	R	U	C	-
WSIG	1	D(245)	R	U	-	8
WTØC	1	D(243)	R	U	-	8
WTR	1	D(244)	R	U	-	8

TABLE 96. VARIABLE REFERENCES, SUBRØUTINE PIVØT (CONCL)

Variable Name	Size	Common Ref Loc	Variable Description			Table Ref
			Type	Used	Calc	
XPVT	1	D(201)	R	U	-	8
YPVT	1	T(900)	R	U	C	3
YSTRC	11	TSEC(166)	R	U	-	226
YSTRP	1	T(41)	R	U	-	34

TABLE 97. VARIABLE REFERENCES, SUBRØUTINE TEE

Variable Name	Size	Common Ref Loc	Variable Description			Table Ref
			Type	Used	Calc	
CD	2000	4121	R	-	-	3
CKA	1	D(192)	R	U	-	8
CKB	1	D(193)	R	U	-	8
CKC	1	D(194)	R	U	-	8
D	2060	2061	R	U	-	3,8
DMTLP	19	CD(1905)	R	-	-	-
DMU	1	DMTLP(2)	R	U	-	-
DN	1	D(199)	R	U	-	8
EC	1	DMTLP(5)	R	U	-	-
ND	100	6121	I	-	-	3,9
PT	100	T(901)	R	U	-	234
S	200	T(1001)	R	U	C	235
T	2060	1	R	-	-	3
TØM	6220	1	R	-	-	3
TTT	1	ARG	R	-	C	-
TTX	1	ARG	R	-	C	-

TABLE 98. VARIABLE REFERENCES, SUBRØUTINE TEL

Variable Name	Size	Common Ref Loc	Variable Description			Table Ref
			Type	Used	Calc	
CD	2000	4121	R	-	-	3
CKA	1	D(192)	R	U	-	8
CKB	1	D(193)	R	U	-	8
CKC	1	D(194)	R	U	-	8
D	2060	2061	R	U	-	3,8
DMTLP	19	CD(1905)	R	-	-	-
EC	1	DMTLP(5)	R	U	-	-
FTU	1	DMTLP(12)	R	U	-	-
ND	100	6121	I	-	-	3,9
PERFTU	1	D(189)	R	U	-	8
PT	100	T(901)	R	U	-	234
S	200	T(1001)	R	U	C	235
T	2060	1	R	-	-	3
TCØM	6220	1	R	-	-	3
THPFWD	1	D(202)	R	U	-	8
TL	1	ARG	R	-	C	-
TX	1	ARG	R	-	C	-

TABLE 99. VARIABLE REFERENCES, SUBRØUTINE DLPVT

Variable Name	Size	Common Ref Loc	Variable Description			Table Ref *
			Type	Used	Calc	
BlØ2	1	T(15)	R	U	-	34
CD	2000	4121	R	U	-	3
CØSEA	1	T(76)	R	U	-	34
CSDEL	1	D(481)	R	U	-	8
D	2060	2061	R	U	-	3,8
DC	100	D(1401)	R	-	-	10
DEL	30	TWT(251)	R	U	-	230
DELPV	7	D(530)	R	U	-	8
DLCS	28	D(482)	R	U	-	8
DLTBX	1	T(188)	R	U	-	34
D1	1	D(1)	R	U	-	8
D2	1	D(2)	R	U	-	8
I	1	-	I	U	C	-
IC	1	ND(47)	I	U	C	9
IGW	1	ND(57)	I	U	-	9
IP	80	/IPRINT/	I	U	-	7
J	1	ND(30)	I	U	C	9
K	1	ND(29)	I	U	C	9
L1	1	-	I	U	C	-
L2	1	-	I	U	C	-
M	1	ND(28)	I	U	C	9
N	1	ND(31)	I	U	C	9
ND	100	6121	I	-	-	3,9
ND1	1	ND(1)	I	U	-	9
ND10	1	ND(10)	I	U	-	9
ND2	1	ND(2)	I	U	-	9
ND3	1	ND(3)	I	U	-	9

TABLE 99. VARIABLE REFERENCES, SUBRØUTINE DLPVT (CONCL)

Variable Name	Size	Common Ref Loc	Variable Description			Table Ref
			Type	Used	Calc	
ND4	1	ND(4)	I	U	-	9
ND9	1	ND(9)	I	U	-	9
PT	100	T(901)	R	U	-	234
S	200	T(1001)	R	U	-	235
T	2060	1	R	-	-	3,34
TCØM	7137	1	R	-	-	3
TSEC	300	CD(1501)	R	U	-	226
TSS	100	T(1961)	R	U	C	-
TW	900	6221	R	U	-	3
TWT	400	CD(1101)	R	U	C	233,230
WCSEC	1	T(5)	R	U	-	34
WIVID	1	T(57)	R	U	-	34
YSTR	11	TSEC(166)	R	U	-	226
ZERØ	1	DC(3)	R	U	-	10

TABLE 100. VARIABLE REFERENCES, SUBRØUTINE PRTA

Variable Name	Size	Common Ref Loc	Variable Description			Table Ref
			Type	Used	Calc	
CD	2000	4121	R	U	-	3
D	2060	2061	R	U	-	3,8
DC	100	D(1401)	R	U	-	10
DGW	3	D(102)	R	U	-	8
DNNZ	1	T(21)	R	U	-	34
DPNZ	1	T(20)	R	U	-	34
GJRQD	11	T(668)	R	U	-	190
I	1	ND(27)	I	U	C	9
IGW	1	ND(61)	I	U	-	9
IND	1	-	I	U	C	-
IØPI	1	ND(74)	I	U	-	9
IØPJ	1	ND(80)	I	U	-	9
IØPP	1	ND(81)	I	U	-	9
IØP1	1	ND(82)	I	U	-	9
J	1	-	I	-	C	-
J2	1	ND(28)	I	U	C	9
K	1	ND(30)	I	U	C	9
L	1	ND(29)	I	U	C	9
N	1	ND(31)	I	U	C	9
NCASE	1	ND(60)	I	U	-	9
ND	100	6121	I	U	-	3,9
NØDW	1	ND(56)	I	U	-	9
NPAGE	1	ND(85)	I	U	C	9
R	16	XMISC(85)	R	U	-	6
T	2060	1	R	U	-	3,34,190
TBWPI	11	T(745)	R	U	-	190
TC	400	T(960)	R	U	C	-

TABLE 100. VARIABLE REFERENCES, SUBRØUTINE PRTA (CONCL)

Variable Name	Size	Common Ref Loc	Variable Description			Table Ref
			Type	Used	Calc	
TDC	200	T(1341)	R	U	-	224
TDWM	11	CD(1979)	R	U	-	-
TDWT	11	CD(1990)	R	U	-	-
TDWV	11	CD(1968)	R	U	-	-
TØ	40	T(920)	R	U	-	237
TR	40	T(1300)	R	U	C	-
TSEC	300	CD(1501)	R	U	-	226
TSS	100	T(1961)	R	U	-	-
TWT	400	CD(1101)	R	U	C	230
ULTNM	11	TSEC(122)	R	U	-	226
ULTNT	11	TSEC(155)	R	U	-	226
ULTNV	11	TSEC(111)	R	U	-	226
ULTPM	11	TSEC(1)	R	U	-	226
ULTPT	11	TSEC(144)	R	U	-	226
WHVID	1	T(57)	R	U	-	34
XMISC	100	/MISC/	R	-	-	6
YBLD	11	T(690)	R	U	-	190
YBLI	11	TSEC(188)	R	U	-	226
YBUD	11	T(679)	R	U	-	190
YBUI	11	TSEC(133)	R	U	-	226
YSTRC	11	TSEC(166)	R	U	-	226

TABLE 101. VARIABLE REFERENCES, SUBRØUTINE PRTH

Variable Name	Size	Common Ref Loc	Variable Description			Table Ref
			Type	Used	Calc	
CD	2000	4121	R	-	-	3
D	2060	2061	R	-	-	3,8
DGW	3	D(102)	R	U	-	8
DNNZ	1	T(21)	R	U	-	34
DPNZ	1	T(20)	R	U	-	34
I	1	-	I	U	C	-
IGW	1	ND(57)	I	U	-	9
IND	1	-	I	U	C	-
IØP1	1	ND(82)	I	U	-	9
K	1	-	I	U	C	-
N	1	ND(31)	I	U	C	9
NCASE	1	ND(60)	I	U	-	9
ND	100	6121	I	U	-	3,9
NØDW	1	ND(56)	I	U	-	9
R		XMISC(85)	R	U	-	6
T	2060	1	R	-	-	3,34
TØGW	3	D(80)	R	U	-	8
TSS	100	T(1961)	R	U	-	236
TW	900	6221	R	-	-	3
TWT	400	CD(1101)	R	U	-	233
XMISC	100	/MISC/	R	-	-	6

TABLE 102. VARIABLE REFERENCES, SUBRØUTINE CNSTR

Variable Name	Size	Common Ref Loc	Variable Description			Table Ref
			Type	Used	Calc	
BMIN	1	D(380)	R	-	C	8
CBLHD	1	TWT(200)	R	U	C	230
CD	2000	4121	R	U	C	3
CJØNT	1	TWT(201)	R	U	C	230
CKNXI	1	D(74)	R	U	-	8
CKNXL	1	D(392)	R	U	-	8
D	2060	2061	R	U	C	3,8
DBLHD	11	D(650)	R	U	-	8
DC	100	D(1401)	R	U	-	10
DCBST	11	D(765)	R	U	C	8
DCHST	11	D(798)	R	U	-	8
DCLST	11	D(787)	R	U	-	8
DCNØS	11	D(776)	R	U	C	8
DCSKL	11	D(732)	R	U	-	8
DCSKU	11	D(721)	R	U	-	8
DEFFI	11	T(800)	R	U	-	190
DEL	30	TWT(251)	R	U	-	230
DELFS	1	DEL(13)	R	U	-	230
DELRS	1	DEL(17)	R	U	-	230
DJØNT	11	D(661)	R	U	-	8
DKFCU	11	D(639)	R	U	-	8
DKFTL	11	D(1008)	R	U	-	8
DKNXL	11	D(831)	R	U	-	8
DLCFS	11	D(809)	R	U	-	8
DLCRS	11	D(820)	R	U	-	8
DLCVL	1	DEL(4)	R	U	-	230
DLCVU	1	DEL(1)	R	U	-	230

TABLE 102. VARIABLE REFERENCES, SUBRØUTINE CNSTR (CONT)

Variable Name	Size	Common Ref Loc	Variable Description			Table Ref
			Type	Used	Calc	
DNXII	11	T(723)	R	U	-	190
DNXL	11	D(942)	R	U	-	8
DNXU	11	D(931)	R	U	-	8
DTSKL	11	D(754)	R	U	-	8
DTSKU	11	D(743)	R	U	-	8
DTTRB	2	T(666)	R	U	-	190
HSTMN	1	D(377)	R	U	C	8
HSTMX	1	D(378)	R	-	C	8
I	1	ND(29)	I	U	C	9
IC	1	ND(48)	I	-	C	9
ICD	1	ND(49)	I	U	-	9
IF4	1	ND(93)	I	U	C	9
IØPI	1	ND(74)	I	U	-	9
IØPJ	1	ND(80)	I	U	-	9
IØP1	1	ND(82)	I	U	-	9
IPB	1	ND(24)	I	U	-	9
ISEC	1	ND(55)	I	U	C	9
IVF	1	ND(51)	I	U	C	9
K	1	ND(30)	I	U	C	9
N	1	ND(31)	I	U	C	9
NCSEC	1	ND(68)	I	U	-	9
ND	100	6121	I	U	-	3,9
NØDW	1	ND(56)	I	U	-	9
SKMN	1	D(370)	R	U	C	8
SKMNL	1	D(394)	R	-	C	8
SLCFS	5	D(1470)	R	U	-	8
STLMN	1	D(375)	R	U	C	8

TABLE 102. VARIABLE REFERENCES, SUBRØUTINE CNSTR (CONCL)

Variable Name	Size	Common Ref Loc	Variable Description			Table Ref
			Type	Used	Calc	
STLMX	1	D(376)	R	-	C	8
SWBCP	2	D(423)	R	U	C	8
T	2060	1	R	-	-	3,190
TBCWT	11	T(789)	R	U	-	190
TBWPI	11	T(745)	R	U	-	190
TC	340	T(960)	R	U	C	-
TDC	200	T(1341)	R	U	C	224
TKKMN	1	TDC(64)	R	U	C	224
TKKMX	1	TDC(65)	R	-	C	224
TKMNL	1	D(395)	R	-	C	8
TMWPI	11	T(778)	R	U	-	190
TØ	40	T(920)	R	U	C	237
TPNLW	11	T(656)	R	U	-	190
TSC	420	T(1541)	R	U	C	225
TSEC	300	CD(1501)	R	U	C	226
TSS	100	T(1961)	R	U	C	-
TT	24	T(1317)	R	U	C	-
TW	900	6221	R	U	C	3
TWT	400	CD(1101)	R	U	C	230
VFWPI	11	T(756)	R	U	-	190
WPNLS	11	T(645)	R	U	-	190
YBLD	11	T(690)	R	U	-	190
YBLI	11	TSEC(188)	R	U	-	226
YBUD	11	T(679)	R	U	-	190
YBUI	11	TSEC(133)	R	U	-	226
YSTRC	11	TSEC(166)	R	U	-	226

TABLE 103. VARIABLE REFERENCES, SUBRØUTINE SECTD

Variable Name	Size	Common Ref Loc	Variable Description			Table Ref
			Type	Used	Calc	
BMAX	1	D(381)	R	U	-	8
BMIN	1	D(380)	R	U	-	8
CBLHD	1	TWT(200)	R	-	C	230
CD	2000	4121	R	-	-	3
CJØNT	1	TWT(201)	R	U	C	230
CNSID	1	D(461)	R	U	-	8
CØNTC	1	D(367)	R	U	-	8
D	2060	2061	R	U	-	3,8
DBLHD	11	D(650)	R	U	-	8
DC	100	D(1401)	R	U	-	10
DCBST	11	D(765)	R	U	-	8
DEL	30	TWT(251)	R	U	-	230
DJØNT	11	D(661)	R	U	-	8
DLFSW	1	DEL(15)	R	U	-	230
DLRSW	1	DEL(19)	R	U	-	230
DLSKL	1	DEL(5)	R	U	-	230
DLSKU	1	DEL(2)	R	U	-	230
DNXL	11	D(942)	R	U	-	8
DNXU	11	D(931)	R	U	-	8
DRIS	4	D(1475)	R	U	-	8
DTC	1	D(462)	R	U	C	8
DTCL	1	D(466)	R	U	-	8
HSTMN	1	D(377)	R	U	-	8
HSTMX	1	D(378)	R	U	-	8
I	1	ND(29)	I	U	-	9
IB	1	ND(52)	I	-	C	9
IBT	1	ND(72)	I	-	C	9

TABLE 103. VARIABLE REFERENCES, SUBRØUTINE SECTD (CONT)

Variable Name	Size	Common Ref Loc	Variable Description			Table Ref
			Type	Used	Calc	
ICD	1	ND(49)	I	U	-	9
IDVF	1	ND(50)	I	U	C	9
IKI	1	ND(32)	I	-	C	9
ILWRC	1	ND(66)	I	U	C	9
IMX	1	ND(71)	I	-	C	9
ISC	1	ND(22)	I	U	-	9
ISEC	1	ND(55)	I	U	-	9
IVF	1	ND(51)	I	U	C	9
IWEB	1	ND(37)	I	-	C	9
ND	100	6121	I	U	-	3,9
PI	1	D(15)	R	U	-	8
SKMN	1	D(370)	R	U	-	8
SKMNL	1	D(394)	R	U	-	8
SNMIN	1	D(382)	R	U	-	8
STFMN	1	D(384)	R	U	-	8
STFMX	1	D(379)	R	U	-	8
STRFN	1	D(361)	R	U	-	8
STRMN	1	D(371)	R	U	-	8
T	2060	1	R	U	-	3,190
TDC	200	T(1341)	R	U	C	224
TKKMN	1	TDC(64)	R	U	-	224
TKMNL	1	D(395)	R	U	-	8
TSC	420	T(1541)	R	U	C	225
TSEC	300	CD(1501)	R	U	C	226
TSS	100	T(1961)	R	U	C	229
TWT	400	CD(1101)	R	U	C	226

TABLE 103. VARIABLE REFERENCES, SUBRØUTINE SECTD (CONCL)

Variable Name	Size	Common Ref Loc	Variable Description			Table Ref
			Type	Used	Calc	
VTID	1	D(289)	R	U	-	8
YBLD	11	T(690)	R	U	C	190
YBUD	11	T(679)	R	U	C	190

TABLE 104. VARIABLE REFERENCES, SUBRØUTINE SFSCH

Variable Name	Size	Common Ref Loc	Variable Description			Table Ref
			Type	Used	Calc	
BSTR	1	ARG	R	U	C	-
CD	2000	4121	R	-	-	3
CNSID	1	D(461)	R	U	-	8
D	2060	2061	R	U	-	
DC	100	D(1401)	R	U	-	
DNXL	11	D(942)	R	U	-	
DNXU	11	D(931)	R	U	-	8
DRIS	4	D(1475)	R	U	-	8
I	1	ND(29)	I	U	C	9
IB	1	ND(52)	I	U	-	9
IK	1	ND(39)	I	-	C	9
IKI	1	ND(32)	I	-	C	9
IL	1	ND(40)	I	U	-	9
IMX	1	ND(47)	I	U	C	9
IN	1	ND(30)	I	U	C	9
IØ1	1	ND(45)	I	U	-	9
IØ2	1	ND(46)	I	U	-	9
ISEC	1	ND(55)	I	U	-	9
ISG	1	ND(86)	I	-	C	9
IVF	1	ND(51)	I	U	-	9
KFC	1	ND(41)	I	U	C	9
LF1	1	ND(42	I	U	C	9
LF2	1	ND(43)	I	U	C	9
LF3	1	ND(44)	I	U	C	9
N	1	ND(31)	I	U	C	9
ND	100	6121	I	U	-	3,9
SKMN	1	D(370)	R	U	-	8

TABLE 104. VARIABLE REFERENCES, SUBRØUTINE SFSCH (CONCL)

Variable Name	Size	Common Ref Loc	Variable Description			Table Ref*
			Type	Used	Calc	
STRFN	1	D(361)	R	U	-	8
STRRØ	1	D(456)	R	U	-	8
STRSK	1	D(455)	R	U	-	8
T	2060	1	R	U	-	3
TDC	200	T(1341)	R	U	C	224
TKKMN	1	TDC(64)	R	U	C	224
TKKMX	1	TDC(65)	R	U	C	224
TSC	420	T(1541)	R	U	C	225
TSEC	300	CD(1501)	R	U	C	226
TSS	100	T(1961)	R	U	C	227,228
TWT	400	CD(1101)	R	U	-	226

TABLE 105. VARIABLE REFERENCES, SUBRØUTINE BØT

Variable Name	Size	Common Ref Loc	Variable Description			Table Ref
			Type	Used	Calc	
CD	2000	4121	R	-	-	3
CNSID	1	D(461)	R	U	-	8
D	2060	2061	R	U	-	3,8
DC	100	D(1401)	R	U	-	10
DTC	1	D(462)	R	U	-	8
I	1	ND(30)	I	U	C	9
IK	1	ND(39)	I	-	C	9
IKI	1	ND(32)	I	U	-	9
KK	1	ND(31)	I	U	C	9
ND	100	6121	I	U	-	3,9
T	2060	1	R	-	-	3
TBT	4	T(1317)	R	U	C	-
TDC	200	T(1341)	R	U	C	224
TSC	420	T(1541)	R	U	C	225

TABLE 106. VARIABLE REFERENCES, SUBRØUTINE BØTC

Variable Name	Size	Common Ref Loc	Variable Description			Table Ref
			Type	Used	Calc	
ALPHA	1	-	R	U	C	-
APNL	1	-	R	U	C	-
ATSK	1	-	R	U	C	-
BBØT	1	T(1385)	R	U	C	224
CD	2000	4121	R	-	-	3
CNSID	1	D(461)	R	U	-	8
D	2060	2061	R	U	-	3,8
DC	100	D(1401)	R	U	-	10
RBTI	1	ARG	R	U	C	-
SFC	1	T(1387)	R	U	C	224
SFCI	1	ARG	R	U	C	-
STRRØ	1	D(456)	R	U	-	8
STRSK	1	D(455)	R	U	-	8
T	2060	1	R	-	-	3
TBT	4	T(1317)	R	U	C	-
TSC	420	T(1541)	R	U	-	225
TWT	400	CD(1101)	R	U	-	226

TABLE 107. VARIABLE REFERENCES, SUBRØUTINE TSCH

Variable Name	Size	Common Ref Loc	Variable Description			Table Ref
			Type	Used	Calc	
BØTFC	1	TSEC(251)	R	U	C	226
BØTFR	1	TSEC(249)	R	U	C	226
BØTHC	1	TSEC(250)	R	U	C	226
BØTHR	1	TSEC(248)	R	U	C	226
CCRSF	1	TSEC(253)	R	U	-	226
CCRSH	1	TSEC(252)	R	U	-	226
CD	2000	4121	R	U	-	3
CNSID	1	D(461)	R	U	-	8
D	2060	2061	R	U	-	3,8
DBKP	4	D(574)	R	U	-	8
DC	100	D(1401)	R	U	-	10
HSTMN	1	D(377)	R	U	-	8
I	1	ND(29)	I	U	C	9
IBT	1	ND(72)	I	U	C	9
IBTØ	1	-	I	U	C	-
IDSK	1	ND(51)	I	U	-	9
IK	1	ND(39)	I	-	C	9
IL	1	ND(40)	I	U	-	9
IL1	1	ND(34)	I	-	C	9
IL2	1	ND(33)	I	U	-	9
IL3	1	ND(32)	I	U	C	9
IMX	1	ND(71)	I	U	C	9
IMXØ	1	-	I	U	C	-
IN	1	ND(30)	I	U	C	9
IP	80	/IPRINT/	I	U	-	7
IRGØ1	1	-	I	U	C	-
ISK1	1	ND(45)	I	U	C	9

TABLE 107. VARIABLE REFERENCES, SUBRØUTINE TSCH (CONCL)

Variable Name	Size	Common Ref Loc	Variable Description			Table Ref
			Type	Used	Calc	
ISK2	1	ND(46)	I	-	C	9
ISTB	1	ND(87)	I	-	C	9
LT1	1	ND(26)	I	U	C	9
LT2	1	ND(27)	I	U	C	9
LT3	1	ND(28)	I	U	C	9
N	1	ND(31)	I	U	C	9
ND	100	6121	I	U	-	3,9
SFCI	1	ARG	R	U	C	-
SKMN	1	D(370)	R	U	-	8
STFMN	1	D(384)	R	U	-	8
STLMN	1	D(375)	R	U	-	8
STLMX	1	D(376)	R	U	-	8
STRFN	1	D(361)	R	U	-	8
STRMN	1	D(371)	R	U	C	8
STRSK	1	D(455)	R	U	-	8
T	2060	1	R	-	-	3
TDC	200	T(1341)	R	U	C	224
TKKMN	1	TDC(64)	R	U	-	224
TKKMX	1	TDC(65)	R	U	-	224
TSC	420	T(1541)	R	U	C	225
TSEC	300	CD(1501)	R	U	C	226
TSS	100	T(1961)	R	U	C	227,228
TWT	400	CD(1101)	R	U	C	230

TABLE 108. VARIABLE REFERENCES, SUBRØUTINE STBAR

Variable Name	Size	Common Ref Loc	Variable Description			Table Ref
			Type	Used	Calc	
BØTFC	1	TSEC(251)	R	U	-	226
BØTHC	1	TSEC(250)	R	U	-	226
CD	2000	4121	R	-	-	3
CNSID	1	D(461)	R	U	-	8
D	2060	2061	R	U	-	3,8
DC	100	D(1401)	R	U	-	10
DRVT	1	D(396)	R	U	-	8
IL	1	ND(34)	I	U	-	9
IMN	1	ND(35)	I	U	-	9
IMØ	1	ND(33)	I	-	C	9
ND	100	6121	I	U	-	3,9
STI	1	ARG	R	U	C	-
STLMN	1	D(375)	R	U	-	8
STLMX	1	D(376)	R	U	-	8
STRFN	1	D(361)	R	U	-	8
T	2060	1	R	-	-	3
TDC	200	T(1341)	R	U	-	224
TRVT	1	D(397)	R	U	-	8
TSC	420	T(1541)	R	U	C	225
TSEC	300	CD(1501)	R	U	-	226

TABLE 109. VARIABLE REFERENCES, SUBRØUTINE STRG

Variable Name	Size	Common Ref Loc	Variable Description			Table Ref
			Type	Used	Calc	
CD	2000	4121	R	-	-	3
CNSID	1	D(461)	R	U	-	8
D	2060	2061	R	U	-	3,8
DC	100	D(1401)	R	U	-	10
HSTMN	1	D(377)	R	U	-	8
HSTMX	1	D(378)	R	U	-	8
I	1	-	I	U	C	-
IK	1	ND(39)	I	-	C	9
IM	1	ND(35)	I	-	C	9
IMX	1	ND(71)	I	U	-	9
IP	80	/XPRINT/	I	U	-	7
IRG	1	ND(70)	I	U	-	9
IRGØ	1	-	I	U	C	-
ISTRG	1	ND(88)	I	-	C	9
ND	100	6121	I	U	-	3,9
STFMN	1	D(384)	R	U	-	8
STFMX	1	D(379)	R	U	-	8
STRFN	1	D(361)	R	U	-	8
STRMN	1	D(371)	R	U	C	8
STRRØ	1	D(456)	R	U	-	8
STRSK	1	D(455)	R	U	-	8
T	2060	1	R	-	-	3
TSC	420	T(1541)	R	U	C	225
TSEC	300	CD(1501)	R	U	-	226
TSS	100	T(1961)	R	U	C	227,228
TWT	400	CD(1101)	R	U	C	230

TABLE 110. VARIABLE REFERENCES, SUBRØUTINE STRGØ

Variable Name	Size	Common Ref Loc	Variable Description			Table Ref
			Type	Used	Calc	
CD	2000	4121	R	-	-	3
D	2060	2061	R	-	-	3,8
HSTMX	1	D(378)	R	U	-	8
IMX	1	ND(71)	I	U	-	9
IRG	1	ND(70)	I	-	C	9
ND	100	6121	I	U	-	3,9
STFMN	1	D(384)	R	U	-	8
STFMX	1	D(379)	R	U	-	8
STRFN	1	D(361)	R	U	-	8
STRMN	1	D(371)	R	U	-	8
T	2060	1	R	-	-	3
TSC	420	T(1541)	R	U	C	225
TSEC	300	CD(1501)	R	U	-	226
TSS	100	T(1961)	R	U	C	227,228
TWT	400	CD(1101)	R	U	C	230

TABLE 111. VARIABLE REFERENCES, SUBRØUTINE STRIL

Variable Name	Size	Common Ref Loc	Variable Description			Table Ref
			Type	Used	Calc	
CD	2000	4121	R	-	-	3
CFIX	1	D(407)	R	U	-	8
CKSTZ	1	D(364)	R	U	-	8
CNSID	1	D(461)	R	U	-	8
CØLID	1	D(393)	R	U	-	8
D	2060	2061	R	U	-	3,8
DC	100	D(1401)	R	U	-	10
DMTLB	19	T(201)	R	-	-	190
DTC	1	D(462)	R	U	-	8
I	1	-	I	U	C	-
ND	100	6121	I	-	-	3,9
PI	1	D(15)	R	U	-	8
SDMU	1	DMTLB(2)	R	U	-	190
STRFN	1	D(361)	R	U	-	8
T	2060	1	R	-	-	3,190
TDC	200	T(1341)	R	U	-	224
TSC	420	T(1541)	R	U	C	225
TSEC	300	CD(1501)	R	U	-	226

TABLE 112. VARIABLE REFERENCES, SUBRØUTINE STRIB

Variable Name	Size	Common Ref Loc	Variable Description			Table Ref
			Type	Used	Calc	
CD	2000	4121	R	-	-	3
CFRIB	1	D(400)	R	U	-	8
CNSID	1	D(461)	R	U	-	8
D	2060	2061	R	U	-	3,8
DC	100	D(1401)	R	U	-	8
DELTW	1	D(406)	R	U	-	8
I	1	-	I	U	C	-
KI	1	ND(39)	I	-	C	9
N	1	ND(31)	I	U	C	9
ND	100	6121	I	U	-	3,9
ND1	1	ND(1)	I	U	-	9
NI	1	ND(38)	I	U	-	9
PI	1	D(15)	R	U	-	8
RBLCP	1	D(405)	R	U	-	8
RBMG	1	D(372)	R	U	-	8
T	2060	1	R	-	-	3
TDC	200	T(1341)	R	U	-	224
TRVT	1	D(397)	R	U	-	8
TSC	420	T(1541)	R	U	C	225
TSS	100	T(1961)	R	U	C	228

TABLE 113. VARIABLE REFERENCES, SUBRØUTINE SRRIB

Variable Name	Size	Common Ref Loc	Variable Description			Table Ref
			Type	Used	Calc	
CD	2000	4121	R	-	-	3
CØRMN	1	D(403)	R	U	-	8
CØRMX	1	D(404)	R	U	-	8
D	2060	2061	R	U	-	3,8
ND	100	D(1401)	I	U	-	3,9
NI	1	ND(38)	I	-	C	9
T	2060	1	R	-	-	3
TDC	200	T(1341)	R	U	-	224
TRBI	1	ARG	R	U	C	-
TSS	100	T(1961)	R	U	C	228

TABLE 114. VARIABLE REFERENCES, SUBRØUTINE STWEB

Variable Name	Size	Common Ref Loc	Variable Description			Table Ref
			Type	Used	Calc	
CD	2000	4121	R	-	-	3
D	2060	2061	R	U	-	3,8
DC	100	D(1401)	R	U	-	10
DELTW	1	D(422)	R	U	-	8
DEPTH	1	ARG	R	U	C	-
DKS	24	D(550)	R	U	-	8
I	1	-	I	U	C	-
IK	1	ND(39)	I	-	C	9
ISEC	1	ND(55)	I	U	-	9
IWEB	1	ND(37)	I	U	-	9
N	1	ND(30)	I	U	C	9
ND	100	6121	I	U	-	3,9
SLCFS	5	D(1470)	R	U	-	8
SWBCP	2	D(423)	R	U	-	8
SWBMG	2	D(373)	R	U	-	8
SWBST	2	D(420)	R	U	-	8
SWKMS	2	D(410)	R	U	-	8
SWKST	2	D(425)	R	U	-	8
SWWST	2	D(418)	R	U	-	8
T	2060	1	R	U	-	3
TDC	200	T(1341)	R	U	-	224
TSS	100	T(1961)	R	U	C	229
TWT	400	CD(1101)	R	U	-	230
VQ	1	ARG	R	U	C	-

TABLE 115. VARIABLE REFERENCES, SUBRØUTINE SKWEB

Variable Name	Size	Common Ref Loc	Variable Description			Table Ref
			Type	Used	Calc	
CD	2000	4121	R	-	-	3
D	2060	2061	R	U	-	3,8
DKS	23	D(550)	R	U	-	8
ND	100	6121	I	-	-	3,9
RI	1	TSS(22)	R	-	C	229
T	2060	1	R	-	-	3
TI	1	TSS(23)	R	U	C	229
TSS	100	T(1961)	R	U	C	229
TX	1	ARG	R	U	C	-

TABLE 116. VARIABLE REFERENCES, SUBRØUTINE VFCAL

Variable Name	Size	Common Ref Loc	Variable Description			Table Ref
			Type	Used	Calc	
CD	2000	4121	R	-	-	3
D	2060	2061	R	U	-	3,8
DC	100	D(1401)	R	U	-	10
I	1	-	I	U	C	-
IVF	1	ND(51)	I	-	C	9
IVFJT	1	ND(53)	I	U	-	9
J	1	ND(30)	I	U	C	9
N	1	ND(31)	I	U	C	9
ND	100	6121	I	U	-	3,9
ND1	1	ND(1)	I	U	-	9
N1	1	ND(41)	I	U	C	9
N2	1	ND(42)	I	U	C	9
N3	1	ND(43)	I	U	C	9
N4	1	ND(44)	I	U	C	9
T	2060	1	R	-	-	3
TDC	200	T(1341)	R	U	C	224
TSS	100	T(1961)	R	U	C	-
TWT	400	CD(1101)	R	U	C	230

TABLE 117. VARIABLE REFERENCES, SUBRØUTINE EIGJC

Variable Name	Size	Common Ref Loc	Variable Description			Table Ref
			Type	Used	Calc	
CD	2000	4121	R	-	C	3
D	2060	2061	R	U	-	3,8
DC	100	D(1401)	R	U	-	10
DEL	30	TWT(251)	R	U	-	230
DLFSC	1	DEL(14)	R	U	-	230
DLRSC	1	DEL(18)	R	U	-	230
DLSTL	1	DEL(6)	R	U	-	230
DLSTU	1	DEL(3)	R	U	-	230
DNXL	11	D(942)	R	U	-	8
DNXU	11	D(931)	R	U	-	8
GJRQD	11	T(668)	R	U	-	190
I	1	ND(30)	I	U	C	9
ISEC	1	ND(55)	I	U	-	9
IVF	1	ND(51)	I	U	-	9
J	1	-	I	U	C	-
N	1	-	I	U	C	-
ND	100	6121	I	U	-	3,9
T	2060	1	R	-	-	3,190
TC	340	T(960)	R	U	C	-
TDC	200	T(1341)	R	U	-	224
TSC	420	T(1541)	R	U	-	225
TSEC	300	CD(1501)	R	U	-	226
TSS	100	T(1961)	R	U	C	-
TWT	400	CD(1101)	R	U	C	230
YBLD	11	T(690)	R	U	-	190
YBUD	11	T(679)	R	U	-	190
YSTRC	11	TSEC(166)	R	U	-	226

TABLE 118. VARIABLE REFERENCES, SUBRØUTINE WTCAL

Variable Name	Size	Common Ref Loc	Variable Description			Table Ref
			Type	Used	Calc	
CD	2000	4121	R	-	-	3
CNSID	1	D(461)	R	U	-	8
D	2060	2061	R	U	-	3,8
DC	100	D(1401)	R	U	-	10
DEFFI	11	T(800)	R	U	C	190
DEL	30	TWT(251)	R	U	-	230
DELFS	1	DEL(13)	R	U	-	230
DELLE	1	T(189)	R	U	-	34
DELRS	1	DEL(17)	R	U	-	230
DELTE	1	T(190)	R	U	-	34
DELWG	1	T(187)	R	U	-	34
DLATT	1	DEL(8)	R	U	-	230
DLCVL	1	DEL(4)	R	U	-	230
DLCVU	1	DEL(1)	R	U	-	230
DLFSC	1	DEL(14)	R	U	-	230
DLFSM	1	DEL(16)	R	U	-	230
DLIRB	1	DEL(9)	R	U	-	230
DLIRM	1	DEL(11)	R	U	-	230
DLIRW	1	DEL(10)	R	U	-	230
DLPNL	10	T(177)	R	U	-	34
DLRSC	1	DEL(18)	R	U	-	230
DLRSM	1	DEL(20)	R	U	-	230
DLSKM	1	DEL(7)	R	U	-	230
DLSTL	1	DEL(6)	R	U	-	230
DLSTU	1	DEL(3)	R	U	-	230
DLTBX	1	T(188)	R	U	-	34
DMISC	1	T(191)	R	U	-	34

TABLE 118. VARIABLE REFERENCES, SUBRØUTINE WTCAL (CONCL)

Variable Name	Size	Common Ref Loc	Variable Description			Table Ref
			Type	Used	Calc	
DNXII	11	T(723)	R	U	C	190
DPCDL	10	T(220)	R	U	-	190
DTBX	32	D(1088)	R	U	-	8
DTTRB	2	T(666)	R	U	-	190
I	1	ND(29)	I	U	C	9
IC	1	ND(48)	I	U	-	9
ISEC	1	ND(55)	I	U	-	9
N	1	ND(28)	I	U	C	9
ND	100	6121	I	U	-	3,9
SDRHØ	1	TWT(175)	R	U	-	230
SWKMS	2	D(410)	R	U	-	8
T	2060	1	R	-	-	3,34,190
TBCWT	11	T(789)	R	U	C	190
TBWPI	11	T(745)	R	U	C	190
TDC	200	T(1341)	R	U	C	224
TMWPI	11	T(778)	R	-	C	190
TPNLW	11	T(656)	R	-	C	190
TSC	420	T(1541)	R	U	-	225
TSEC	300	CD(1501)	R	U	-	226
TWT	400	CD(1101)	R	U	C	230
VFWPI	11	T(756)	R	-	C	190
WPLLE	12	T(285)	R	U	-	190
WPLTE	12	T(297)	R	U	-	190
WPNLS	11	T(645)	R	U	C	190
WTIP	4	T(641)	R	U	-	190
YSTRC	11	TSEC(166)	R	U	-	226

TABLE 119. VARIABLE REFERENCES, SUBRØUTINE BHDJT

Variable Name	Size	Common Ref Loc	Variable Description			Table Ref
			Type	Used	Calc	
CBLHD	1	TWT(200)	R	U	-	230
CD	2000	4121	R	-	-	3
CJØNT	1	TWT(201)	R	U	-	230
CNSID	1	D(461)	R	U	-	8
D	2060	2061	R	U	-	3,8
DBLAT	1	DEL(12)	R	U	-	230
DBLØ	11	D(1479)	R	U	-	8
DC	100	D(1401)	R	U	-	10
DEL	30	TWT(251)	R	U	-	230
DLIRB	1	DEL(9)	R	U	-	230
DLIRW	1	DEL(10)	R	U	-	230
DLRRC	1	DEL(22)	R	U	-	230
DLSKM	1	DEL(7)	R	U	-	230
DSPLI	8	D(1490)	R	U	-	8
DSPLØ	7	D(58)	R	U	-	8
DSPR	9	D(462)	R	U	-	8
I	1	-	I	U	C	-
ICB	1	ND(47)	I	J	C	9
ISEC	1	ND(55)	I	U	-	9
ND	100	6121	I	U	C	3,9
SDRHØ	1	TWT(175)	R	U	-	230
SKMN	1	D(370)	R	U	-	8
SLCFS	4	D(1470)	R	U	-	8
T	2060	1	R	-	-	3
TDC	200	T(1341)	R	U	-	224
TSEC	300	CD(1501)	R	U	-	226
TT	24	T(1317)	R	U	C	-
TWT	400	CD(1101)	R	U	C	230

TABLE 120. VARIABLE REFERENCES, SUBRØUTINE RTRIB

Variable Name	Size	Common Ref Loc	Variable Description			Table Ref
			Type	Used	Calc	
CD	2000	4121	R	-	-	3
CNSID	1	D(461)	R	U	-	8
CØSEA	1	T(76)	R	U	-	34
D	2060	2061	R	U	-	3,8
DBLØ	11	D(1479)	R	U	-	8
DC	100	D(1401)	R	U	-	10
DEL	30	TWT(251)	R	U	-	230
DELRR	1	DEL(21)	R	U	-	230
DELST	1	D(520)	R	U	-	8
DKMRR	1	D(69)	R	U	-	8
DLRRC	1	DEL(22)	R	U	-	230
DLRRM	1	DEL(24)	R	U	-	230
DLRRW	1	DEL(23)	R	U	-	230
DSPR	9	D(462)	R	U	-	8
DSTIE	8	D(521)	R	U	-	8
ND	100	6121	1	-	-	3,9
SDRHØ	1	TWT(175)	R	U	-	230
SINEA	1	T(75)	R	U	-	34
T	2060	1	R	-	-	3,34
TDC	200	T(1341)	R	U	-	224
TSEC	300	CD(1501)	R	U	-	226
TT	24	T(1317)	R	U	C	-
TWT	400	CD(1101	R	U	C	230

TABLE 121. VARIABLE REFERENCES, SUBRØUTINE WTPIN

Variable Name	Size	Common Ref Loc	Variable Description			Table Ref
			Type	Used	Calc	
CD	2000	4121	R	-	-	3
CNSID	1	D(461)	R	U	-	8
D	2060	2061	R	-	-	3,8
DC	100	D(1401)	R	U	-	10
DEL	30	TWT(251)	R	U	-	230
DELLE	1	T(189)	R	U	-	34
DELTE	1	T(190)	R	U	-	34
DELWG	1	T(187)	R	U	-	34
DLTBX	1	T(188)	R	U	-	34
DMISC	1	T(191)	R	U	-	34
I	1	-	I	U	C	-
ISEC	1	ND(55)	I	U	-	9
J	1	ND(30)	I	U	C	9
N	1	ND(31)	I	U	C	9
ND	100	6121	I	U	-	3,9
SDRHØ	1	TWT(175)	R	U	-	230
SWKMS	2	D(410)	R	U	-	8
T	2060	1	R	U	-	3,34,190
TCØM	7120	1	R	U	-	3
TDC	200	T(1341)	R	U	-	224
TW	900	6221	R	-	C	3
TWT	400	CD(1101)	R	U	C	230
WPILE	11	T(263)	R	U	-	190
WPITE	11	T(274)	R	U	-	190

TABLE 122. VARIABLE REFERENCES, SUBRØUTINE SS

Variable Name	Size	Common Ref Loc	Variable Description			Table Ref
			Type	Used	Calc	
CD	2000	4121	R	-	-	3
D	2060	2061	R	U	-	3,8
ND	100	6121	I	-	-	3,9
SA	14	T(1377)	R	U	C	224
SC1	1	T(1321)	R	U	C	-
SC2	1	T(1322)	R	U	C	-
SD	7	T(1392)	R	U	-	224
SFC	1	T(1391)	R	U	C	224
SFCI	1	ARG	R	U	C	-
T	2060	1	R	-	-	3

TABLE 123. VARIABLE REFERENCES, SUBRØUTINE CG3P

Variable Name	Size	Common Ref Loc	Variable Description			Table Ref
			Type	Used	Calc	
CC	3	T(1329)	R	U	C	-
CD	2000	4121	R	-	-	3
CF	9	T(1332)	R	U	C	-
CX	3	T(1323)	R	U	C	-
CXI	1	T(1387)	R	U	C	224
CZ	3	T(1326)	R	U	C	-
D	2060	2061	R	U	-	3,8
I	1	-	I	U	C	-
IK	1	ND(39)	I	U	-	9
IL	1	ND(40)	I	-	C	9
ND	100	6121	I	U	-	3,9
ND1	1	ND(1)	I	U	-	9
T	2060	1	R	-	-	3
VAR	1	-	R	U	C	-
XX	3	ARG	R	U	C	-
ZZ	3	ARG	R	U	C	-

TABLE 124. VARIABLE REFERENCES, SUBRØUTINE PRTB

Variable Name	Size	Common Ref Loc	Variable Description			Table Ref
			Type	Used	Calc	
ACID	1	D(430)	R	U	-	8
CD	2000	4121	R	U	-	3
D	2060	2061	R	-	-	3,8
DGW	3	D(102)	R	U	-	8
I	1	ND(28)	I	U	C	9
IGW	1	ND(57)	I	U	-	9
IØP1	1	ND(82)	I	U	-	9
ISEC	1	ND(55)	I	U	-	9
IVF	1	ND(51)	I	U	-	9
IVFJT	1	ND(53)	I	U	-	9
J	1	ND(29)	I	U	C	9
K	1	ND(30)	I	U	C	9
N	1	ND(31)	I	U	C	9
NCASE	1	ND(60)	I	U	-	9
ND	100	6121	I	U	-	3,9
NØDW	1	ND(56)	I	U	-	9
R	16	XMISC(85)	R	U	-	6
T	2060	1	R	-	-	3
TDC	200	T(1341)	R	U	-	224
TØGW	3	D(80)	R	U	-	8
TSC	420	T(1541)	R	U	-	225
TWT	400	CD(1101)	R	U	-	230
XMISC	100	/MISC/	R	-	-	6

TABLE 125. VARIABLE REFERENCES, SUBRØUTINE PRTBK

Variable Name	Size	Common Ref Loc	Variable Description			Table Ref
			Type	Used	Calc	
CD	2000	4121	R	-	-	3
D	2060	2061	R	U	-	3,8
DC	100	D(1401)	R	-	-	10
I	1	ND(31)	I	U	C	9
IK	1	ND(39)	I			9
IP	80	/IPRINT/	I	-	-	7
IRGØ	1	ND(28)	I	U	-	9
ISEC	1	ND(55)	I	U	-	9
K	1	ND(29)	I	U	C	9
N	1	ND(30)	I	U	C	9
ND	100	6121	I	U	-	3,9
NØDW	1	ND(56)	I	U	-	9
T	2060	1	R	U	-	3
TDC	200	T(1341)	R	U	-	224
TSC	420	T(1541)	R	U	-	225
TSEC	300	CD(1501)	R	U	-	226
TSS	100	T(1961)	R	U	-	227,228
TWT	400	CD(1101)	R	U	-	230

TABLE 126. VARIABLE REFERENCES, SUBRØUTINE PRTC

Variable Name	Size	Common Ref Loc	Variable Description			Table Ref
			Type	Used	Calc	
ACID	1	D(430)	R	U	-	8
CD	2000	4121	R	-	-	3
D	2060	2061	R	-	-	3,8
DGW	3	D(102)	R	U	-	8
I	1	ND(29)	I	U	C	9
IGW	1	ND(57)	I	U	-	9
IØP1	1	ND(82)	I	U	-	9
ISEC	1	ND(55)	I	U	-	9
IVF	1	ND(51)	I	U	-	9
K	1	ND(30)	I	U	C	9
N	1	ND(31)	I	U	C	9
NCASE	1	ND(60)	I	U	-	9
ND	100	6121	I	U	-	3,9
R	16	XMISC(85)	R	U	-	6
T	2060	1	R	-	-	3
TØGW	3	D(80)	R	U	-	8
TSS	100	T(1961)	R	U	-	-
TT	24	T(1317)	R	U	-	-
TWT	400	CD(1101)	R	U	-	230
XMISC	100	/MISC/	R	-	-	6

TABLE 127. VARIABLE REFERENCES, SUBROUTINE ACPRØG

Variable Name	Size	Common Ref Loc	Variable Description			Table Ref
			Type	Used	Calc	
ACVFDE	11	CD(1938)	R	U	C	–
ACVFDG	11	CD(1949)	R	U	C	–
CD	2000	4121	R	U	–	3
CDLK1	1	TDGW(13)	R	U	C	190
CDLK2	1	TDGW(14)	R	U	C	190
CDLK3	1	TDGW(15)	R	U	C	190
CDLM1	11	T(320)	R	U	–	190
CDLM2	11	T(353)	R	U	–	190
CDLM3	11	T(386)	R	U	–	190
CDLT1	11	T(331)	R	U	–	190
CDLT2	11	T(364)	R	U	–	190
CDLT3	11	T(397)	R	U	–	190
CDLV1	11	T(309)	R	U	–	190
CDLV2	11	T(342)	R	U	–	190
CDLV3	11	T(375)	R	U	–	190
CT	2048	7121	R	–	C	3
CTBW	150	T(1541)	R	U	C	193
D	2060	2061	R	U	C	3,8
DBMII	11	T(712)	R	–	C	190
DC	100	D(1401)	R	U	–	10
DCDL1	8	D(167)	R	U	–	8
DCNST3	22	D(1301)	R	U	–	8
DEVF	1	CD(1935)	R	U	C	–
DGVF	1	CD(1936)	R	U	C	–
DGW	3	D(102)	R	U	–	8
DGWI	1	T(22)	R	U	C	34
DGWØ	1	D(105)	R	U	–	8

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TABLE 127. VARIABLE REFERENCES, SUBROUTINE ACPRØG (CONT)

Variable Name	Size	Common Ref Loc	Variable Description			Table Ref
			Type	Used	Calc	
DGWR	1	TDGW(2)	R	U	C	190
DGWRI	1	TDGW(1)	R	–	C	190
DINID	1	D(271)	R	U	–	8
DKVL	1	D(234)	R	U	–	8
DMTLB	19	T(201)	R	U	–	190
DPCDL	10	T(220)	R	U	–	190
DRHØØ	1	CD(1937)	R	U	C	–
DTMPB	1	D(281)	R	U	–	8
DTMPFL	1	D(283)	R	U	–	8
DTMPFØ	1	D(284)	R	U	–	8
DWM	11	T(609)	R	U	–	190
DWMII	11	T(701)	R	–	C	190
DWNØ	1	D(369)	R	U	–	8
ENP	9	D(1155)	R	U	–	8
FLM1	11	T(456)	R	U	–	190
FLM2	11	T(408)	R	U	–	190
FLT1	11	T(467)	R	U	–	190
FLT2	11	T(419)	R	U	–	190
FLV1	11	T(445)	R	U	–	190
FLV2	11	T(478)	R	U	–	190
I	1	ND(28)	I	U	C	9
IF4	1	ND(93)	I	U	C	9
IF8	1	ND(97)	I	U	C	9
IGT	1	ND(57)	I	U	–	9
IGW	1	ND(61)	I	U	C	9
ILCASE	1	ND(41)	I	–	C	9
K	1	ND(29)	I	–	C	9

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TABLE 127. VARIABLE REFERENCES, SUBROUTINE ACPRØG (CONT)

Variable Name	Size	Common Ref Loc	Variable Description			Table Ref
			Type	Used	Calc	
N	1	ND(27)	I	U	C	9
ND	100	6121	I	U	–	3,9
NDWP	1	ND(25)	I	U	C	9
NØDW	1	ND(56)	I	U	C	9
RFDGW	8	T(522)	R	U	–	190
RFL1	1	TDGW(11)	R	U	C	190
RFL2	1	TDGW(12)	R	U	C	190
RLDS	132	CD(400)	R	U	–	–
SDRHØ	1	TWT(175)	R	U	C	230
SDWM	11	T(855)	R	–	C	190
SDWT	11	T(866)	R	–	C	190
SDWV	11	T(844)	R	–	C	190
STMM	11	T(822)	R	U	–	190
STMT	11	T(833)	R	U	–	190
STMV	11	T(811)	R	U	–	190
SWT	11	T(734)	R	U	–	190
T	2060	1	R	–	C	3,34,190
TBCWT	11	T(789)	R	U	–	190
TBD	11	T(530)	R	U	–	190
TBW	11	T(542)	R	U	–	190
TBWPI	11	T(745)	R	U	–	190
TCNST	8	CD(1960)	R	U	C	–
TDGW	15	T(430)	R	–	–	190
TEIGJ	4	TW(783)	R	U	C	199
TEMP	20	CT(2003)	R	–	C	–
TMWPI	11	T(778)	R	U	–	190
TØGW	3	D(80)	R	U	–	8

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TABLE 127. VARIABLE REFERENCES, SUBROUTINE ACPRØG (CONCL)

Variable Name	Size	Common Ref Loc	Variable Description			Table Ref
			Type	Used	Calc	
TPNILW	11	T(656)	R	U	–	190
TSEC	300	CD(1501)	R	–	–	226
TW	900	6221	R	–	–	3
TWT	400	CD(1101)	R	U	C	230
ULTPM	11	TSEC(1)	R	U	–	226
VFDTMP	1	T(196)	R	U	–	34
VFID	1	D(251)	R	U	–	8
VFWPI	11	T(756)	R	U	–	190
W	22	CT(1981)	R	–	C	–
WPNLS	11	T(645)	R	U	–	190
XLCASE	1	CT(2046)	R	–	C	–
XMISC	100	/MISC/	R	–	–	6

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TABLE 128. VARIABLE REFERENCES, SUBROUTINE ACLØAD

Variable Name	Size	Common Ref Loc	Variable Description			Table Ref
			Type	Used	Calc	
ACL	900	CT(1)	R	U	C	196
ALNM	11	T(587)	R	U	–	190
ALNT	11	T(888)	R	U	–	190
ALNV	11	T(576)	R	U	–	190
ALPM	11	T(565)	R	U	–	190
ALPT	11	T(877)	R	U	–	190
ALPV	11	T(554)	R	U	–	190
CD	2000	4121	R	–	–	3
CT	2048	7121	R	–	–	3
D	2060	2061	R	U	–	3,8
DC	100	D(1401)	R	U	–	10
DCDL1	8	D(167)	R	U	–	8
DFLD1	8	D(159)	R	U	–	8
DGWØ	1	D(105)	R	U	–	8
DMTI	1	D(259)	R	U	–	8
DNNI	1	T(21)	R	U	–	34
DPNI	1	T(20)	R	U	–	34
I	1	ND(29)	I	U	C	9
IFL	1	–	I	U	C	–
ILCASE	1	ND(41)	I	U	C	9
IP	80	/IPRINT/	I	U	–	7
J	1	–	I	U	C	–
K	1	ND(30)	I	U	C	9
L	1	–	I	U	C	–
N	1	ND(31)	I	U	C	9
NCASE	1	ND(60)	I	U	–	9
ND	100	6121	I	U	–	3,9

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TABLE 128. VARIABLE REFERENCES, SUBROUTINE ACLØAD (CONCL)

Variable Name	Size	Common Ref Loc	Variable Description			Table Ref
			Type	Used	Calc	
SLDID	1	D(205)	R	U	–	8
T	2060	1	R	–	–	3,190
TEMP	20	CT(2003)	R	U	C	–
TFLD	10	T(631)	R	U	–	190
TØGWØ	1	D(88)	R	U	–	8
TT	24	T(1317)	R	U	C	–
VTID	1	D(289)	R	U	–	8
WBØ	200	CD(556)	R	U	C	–
WHVLID	24	CD(532)	R	U	C	–

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TABLE 129. VARIABLE REFERENCES, SUBROUTINE TEMPC

Variable Name	Size	Common Ref Loc	Variable Description			Table Ref
			Type	Used	Calc	
ACCVID	1	D(431)	R	U	–	8
CD	2000	4121	R	–	–	3
CFBCY	1	D(596)	R	U	–	8
CFBE	1	ENH(2)	R	U	–	–
CFBMU	1	D(595)	R	U	–	8
CFMIL	15	D(580)	R	U	–	8
CT	2048	7121	R	–	–	3
D	2060	2061	R	–	–	3,8
EBØT	20	TW(819)	R	U	C	–
ENC	3	CT(2043)	R	U	C	–
ENH	6	D(1164)	R	U	–	8
ENP	9	D(1155)	R	U	C	8
ENQ	100	TW(601)	R	U	C	200
ENQC	24	TW(787)	R	U	C	201
ENX	60	TW(701)	R	U	C	204
F	1	–	R	U	C	–
FDHCV	20	TW(841)	R	U	–	–
FDHFE	20	TW(861)	R	U	–	–
FDHFG	20	TW(881)	R	U	–	–
G	20	CT(2023)	R	U	–	–
I	1	–	I	U	C	–
ILCASE	1	ND(41)	I	U	–	9
IP	80	/IPRINT/	I	U	–	7
LCASE	1	–	I	U	C	–
N	1	–	I	U	C	–
NCASE	1	ND(60)	I	U	C	9
ND	100	6121	I	–	–	3,9

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TABLE 129. VARIABLE REFERENCES, SUBROUTINE TEMPC (CONCL)

Variable Name	Size	Common Ref Loc	Variable Description			Table Ref
			Type	Used	Calc	
NL	1	–	I	U	C	–
NU	1	–	I	U	C	–
PI	1	D(15)	R	U	–	8
PRØP	7	T(1300)	R	U	C	–
REFSTE	4	TW(811)	R	U	C	–
REFSTG	4	TW(815)	R	U	C	–
T	2060	1	R	–	–	3
TC	35	D(1170)	R	U	–	8
TEIGJ	4	TW(783)	R	U	–	199
TEMP	20	CT(2003)	R	U	–	–
TW	900	6221	R	–	–	3
XX	1	–	R	U	C	–

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TABLE 130. VARIABLE REFERENCES, SUBROUTINE AVLØAD

Variable Name	Size	Common Ref Loc	Variable Description			Table Ref
			Type	Used	Calc	
ACL	900	CT(1)	R	U	–	196
ACLT	66	CD(532)	R	U	C	197
ACVMT	660	CT(1321)	R	U	C	198
ALNM	11	T(587)	R	U	–	190
ALNT	11	T(888)	R	U	–	190
ALNV	11	T(576)	R	U	–	190
ALPM	11	T(565)	R	U	–	190
ALPT	11	T(877)	R	U	–	190
ALPV	11	T(554)	R	U	–	190
CD	2000	4121	R	–	–	3,217
CDLK3	1	TDGW(15)	R	U	–	190
CDLM1	11	T(320)	R	U	–	190
CDLM2	11	T(353)	R	U	–	190
CDLM3	11	T(386)	R	U	–	190
CDLT1	11	T(331)	R	U	–	190
CDLT2	11	T(364)	R	U	–	190
CDLT3	11	T(397)	R	U	–	190
CDLV1	11	T(309)	R	U	–	190
CDLV2	11	T(342)	R	U	–	190
CDLV3	11	T(375)	R	U	–	190
CT	2048	7121	R	–	–	3
D	2060	2061	R	U	–	3,8
DC	100	D(1401)	R	U	–	10
DDWK	1	TDGW(3)	R	U	–	190
DGWI	1	T(22)	R	U	–	34
DGWR	1	TDGW(2)	R	U	–	190
DVFS	11	D(842)	R	U	–	8

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TABLE 130. VARIABLE REFERENCES, SUBROUTINE AVLØAD (CONT)

Variable Name	Size	Common Ref Loc	Variable Description			Table Ref
			Type	Used	Calc	
DVFSRS	11	CD(1924)	R	U	–	–
DVRS	11	D(853)	R	U	–	8
DWM	11	T(609)	R	U	–	190
DWT	11	T(620)	R	U	–	190
DWV	11	T(598)	R	U	–	190
FLM1	11	T(456)	R	U	–	190
FLM2	11	T(408)	R	U	–	190
FLT1	11	T(467)	R	U	–	190
FLT2	11	T(419)	R	U	–	190
FLV1	11	(T445)	R	U	–	190
FLV2	11	T(478)	R	U	–	190
GJRQD	11	T(668)	R	U	–	190
I	1	–	I	U	C	–
IGW	1	ND(61)	I	U	–	9
ILCASE	1	ND(41)	I	U	–	9
IØP1	1	ND(82)	I	U	–	9
IP	80	/IPRINT/	I	U	–	7
K	1	ND(31)	I	U	C	9
L	1	–	I	U	C	–
LID	1	ND(54)	I	U	–	9
N	1	ND(30)	I	U	C	9
NCASE	1	ND(60)	I	U	–	9
ND	100	6121	I	U	–	9
NØDW	1	ND(56)	R	U	–	3,9
RLDS	132	CD(400)	R	U	–	–
SDWM	11	T(855)	R	U	–	190
SDWT	11	T(866)	R	U	–	190

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TABLE 130. VARIABLE REFERENCES, SUBROUTINE AVLØAD (CONCL)

Variable Name	Size	Common Ref Loc	Variable Description			Table Ref
			Type	Used	Calc	
SDWV	11	T(844)	R	U	–	190
STMM	11	T(822)	R	U	–	190
STMT	11	T(833)	R	U	–	190
STMV	11	T(811)	R	U	–	190
T	2060	1	R	–	–	3,34,190
TBXK	1	TDGW(4)	R	U	–	190
TDGW	16	T(430)	R	–	–	190
TDWM	11	CD(1979)	R	–	C	–
TDWT	11	CD(1990)	R	–	C	–
TDWV	11	CD(1968)	R	–	C	–
TSEC	300	CD(1501)	R	–	–	226
TT	24	T(1317)	R	U	C	–
ULTLF	1	D(122)	R	U	–	8
ULTNM	11	TSEC(122)	R	U	C	226
ULTNT	11	TSEC(155)	R	U	C	226
ULTNV	11	TSEC(111)	R	U	C	226
ULTPM	11	TSEC(1)	R	U	C	226
ULTPT	11	TSEC(144)	R	U	C	226
ULTPV	11	TSEC(12)	R	U	C	226
UNNZ	1	D(286)	R	U	–	8
UNPZ	1	D(285)	R	U	–	8
UVFS	11	TSEC(23)	R	–	C	226
UVRS	11	TSEC(24)	R	–	C	226

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TABLE 131. VARIABLE REFERENCES, SUBROUTINE ATBØPT

Variable Name	Size	Common Ref Loc	Variable Description			Table Ref
			Type	Used	Calc	
ACCVID	1	D(431)	R	U	–	8
ACFSID	1	D(436)	R	U	–	8
ACID	1	D(430)	R	U	–	8
ACKIC	1	D(457)	R	U	–	8
ACKNP	1	D(429)	R	U	–	8
ACPNLF	1	D(459)	R	U	–	8
ACPNLI	1	D(458)	R	U	–	8
ACPNLR	1	D(460)	R	U	–	8
ACRSID	1	D(437)	R	U	–	8
ACSPID	1	D(435)	R	U	–	8
ACSSID	1	D(438)	R	U	–	8
ACVSTL	1	D(433)	R	U	–	8
ACVSTU	1	D(432)	R	U	–	8
APRTID	12	T(1070)	R	–	C	–
BFMAX	1	CNT(42)	R	–	C	202
BFMIN	1	CNT(41)	R	–	C	202
BMAX	1	D(381)	R	U	–	8
BMIN	1	D(380)	R	U	–	8
BRMAX	1	CNT(4)	R	–	C	202
BRMIN	1	CNT(3)	R	–	C	202
BSMAX	1	CNT(6)	R	U	C	202
BSMIN	1	CNT(5)	R	U	C	202
BWMAX	1	CNT(7)	R	–	C	202
BWMIN	1	CNT(40)	R	–	C	202
CD	2000	4121	R	U	–	3,217
CNT	91	T(1541)	R	–	C	202
CT	2048	7121	R	U	C	3

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TABLE 131. VARIABLE REFERENCES, SUBROUTINE ATBØPT (CONT)

Variable Name	Size	Common Ref Loc	Variable Description			Table Ref
			Type	Used	Calc	
C10	1	CNT(35)	R	–	C	202
C3	1	CNT(13)	R	–	C	202
C7	1	CNT(22)	R	–	C	202
C8	1	CNT(23)	R	–	C	202
C9	1	CNT(34)	R	–	C	202
D	2060	2061	R	U	–	3,8
DBKP	5	D(574)	R	U	–	8
DC	100	D(1401)	R	U	–	10
DEL	30	TWT(251)	R	–	–	230
DELFS	1	DEL(13)	R	U	–	230
DELRS	1	DEL(17)	R	U	–	230
DELWG	1	T(187)	R	U	–	34
DFSRHØ	1	D(597)	R	U	–	8
DINRHØ	1	D(469)	R	U	–	8
DINS	1	D(465)	R	U	–	8
DINSL	1	D(467)	R	U	–	8
DKMPLI	1	D(479)	R	U	–	8
DLCS	24	D(482)	R	U	–	8
DLCVL	1	DEL(4)	R	U	–	230
DLCVU	1	DEL(1)	R	U	–	230
DPFRHØ	1	D(470)	R	U	–	8
DSKLML	1	D(441)	R	U	–	8
DSKLMU	1	D(440)	R	U	–	8
DSTLML	1	D(443)	R	U	–	8
DSTLMU	1	D(442)	R	U	–	8
DTC	1	D(462)	R	U	–	8
DTCL	1	D(466)	R	U	–	8

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TABLE 131. VARIABLE REFERENCES, SUBROUTINE ATBØPT (CONT)

Variable Name	Size	Common Ref Loc	Variable Description			Table Ref
			Type	Used	Calc	
DTTRB	2	T(666)	R	U	–	190
DYPVT	1	D(200)	R	U	–	8
ENH	6	D(1164)	R	U	–	8
ENP	9	D(1155)	R	U	–	8
HSTMN	1	D(377)	R	U	–	8
HSTMX	1	D(378)	R	U	–	8
I	1	–	I	U	C	–
IF4	1	ND(93)	I	U	C	9
IGT	1	ND(57)	I	U	–	9
IGW	1	ND(61)	I	U	C	9
IP	80	/IPRINT/	I	U	–	7
IPA	1	ND(23)	I	U	C	9
IPB	1	ND(24)	I	–	C	9
N	1	ND(30)	I	U	C	9
ND	100	6121	I	U	–	3,9
NØDW	1	ND(56)	I	U	–	9
NSPMAX	1	CNT(18)	R	U	C	202
NSPMIN	1	CNT(17)	R	U	C	202
PFFSCV	1	CT(2047)	R	–	C	202
PFFSSP	1	CT(2048)	R	–	C	202
SLLMIN	1	CNT(19)	R	–	C	202
SLUMIN	1	CNT(8)	R	–	C	202
SNMAX	1	D(399)	R	U	–	8
SNMIN	1	D(382)	R	U	–	8
STFMN	1	D(384)	R	U	–	8
STFMX	1	D(379)	R	U	–	8
STLMIN	1	CNT(16)	R	–	C	202

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TABLE 131. VARIABLE REFERENCES, SUBROUTINE ATBØPT (CONCL)

Variable Name	Size	Common Ref Loc	Variable Description			Table Ref
			Type	Used	Calc	
STLMN	1	D(375)	R	U	–	8
STLMX	1	D(376)	R	U	–	8
STRCN	1	D(383)	R	U	–	8
STUMIN	1	CNT(15)	R	–	C	202
SWT	11	T(734)	R	–	C	190
T	2060	1	R	–	–	3,34,190
TBW	11	T(542)	R	U	–	190
TC	400	T(960)	R	U	C	–
TCPNLF	1	CNT(32)	R	–	C	202
TCPNLI	1	CNT(31)	R	–	C	202
TCPNLL	1	CNT(30)	R	U	C	202
TCPNLR	1	CNT(33)	R	–	C	202
TCPNLU	1	CNT(29)	R	U	C	202
TSC	420	T(1541)	R	U	C	225
TSS	100	T(1961)	R	U	C	236
TT	24	T(1317)	R	U	C	–
TWT	400	CD(1101)	R	U	C	230
WHVID	1	T(57)	R	U	–	34
XFCØDE	1	CNT(27)	R	–	C	202
XKCØDE	1	CNT(19)	R	–	C	202
XPCØDE	1	CNT(20)	R	–	C	202
XRCØDE	1	CNT(28)	R	–	C	202
XSTRL	1	CNT(2)	R	U	C	202
XSTRU	1	CNT(1)	R	U	C	202
XTYPE	1	CNT(10)	R	U	C	202

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TABLE 132. VARIABLE REFERENCES, SUBROUTINE ACNSTR

Variable Name	Size	Common Ref Loc	Variable Description			Table Ref
			Type	Used	Calc	
ACID	1	D(430)	R	U	–	8
BRRL	11	TW(265)	R	U	–	–
BRRU	11	TW(254)	R	U	–	–
CBLHD	1	TWT(200)	R	–	C	230
CD	2000	4121	R	U	C	3,217
CFRIB	1	D(400)	R	U	–	8
CJØNT	1	TWT(201)	R	–	C	230
CNT	38	T(1541)	R	U	–	202
CRLC	77	T(960)	R	U	–	–
CT	2048	7121	R	–	–	3
C10	1	CNT(35)	R	U	–	202
C7	1	CNT(22)	R	U	–	202
C9	1	CNT(34)	R	U	–	202
D	2060	2061	R	U	–	3,8
DBLHD	11	D(650)	R	U	–	8
DBRHØ	1	D(464)	R	U	–	8
DC	100	D(1401)	R	U	–	10
DDFS	220	CD(661)	R	U	C	221
DDIS	220	CD(441)	R	U	C	220
DDLC	220	CD(221)	R	U	C	219
DDRS	220	CD(881)	R	U	C	221
DDSTR	330	CT(1321)	R	U	C	222
DDUC	220	CD(1)	R	U	C	219
DEL	30	TWT(251)	R	–	–	230
DJØNT	11	D(661)	R	U	–	8
DKMIR	1	D(24)	R	U	–	8
DLFSW	1	DEL(15)	R	U	–	–

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TABLE 132. VARIABLE REFERENCES, SUBROUTINE ACNSTR (CONT)

Variable Name	Size	Common Ref Loc	Variable Description			Table Ref
			Type	Used	Calc	
DLRGJM	44	CD(309)	R	U	–	217
DLRSW	1	DEL(19)	R	U	–	230
DLSKL	1	DEL(5)	R	U	–	230
DLSKU	1	DEL(2)	R	U	–	230
EL	15	T(1300)	R	U	C	205
ENC	3	CT(2043)	R	U	–	–
ENH	4	D(1164)	R	U	–	8
ENP	9	D(1155)	R	U	–	8
FCR	110	T(1100)	R	U	–	–
FSKL	11	TW(232)	R	U	–	–
FSKU	11	TW(188)	R	U	–	–
FSTL	11	TW(243)	R	U	–	–
FSTU	11	TW(199)	R	U	–	–
I	1	–	I	U	C	–
IC	1	ND(48)	I	–	C	9
IEL	165	TW(1)	R	U	–	206
IP	80	/IPRINT/	I	U	–	7
IPB	1	ND(24)	I	U	–	9
ISEC	1	ND(55)	I	U	C	9
K	1	–	I	U	C	–
N	1	–	I	U	C	–
ND	100	6121	I	U	–	3,9
PFFSCV	1	CT(2047)	R	U	–	–
PFFSSP	1	CT(2048)	R	U	–	–
SKNXL	11	TW(210)	R	U	–	–
SKNXU	11	TW(166)	R	U	–	–
SLCFS	5	D(1470)	R	U	–	8

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TABLE 132. VARIABLE REFERENCES, SUBROUTINE ACNSTR (CONT)

Variable Name	Size	Common Ref Loc	Variable Description			Table Ref
			Type	Used	Calc	
SPB	33	T(1232)	R	U	–	207
SPCRUH	11	T(1632)	R	U	–	–
SPN	33	T(1265)	R	U	–	208
STNXL	11	TW(221)	R	U	–	–
STNXU	11	TW(177)	R	U	–	–
STRESS	1320	CT(1)	R	U	–	203
STRING	220	T(1676)	R	U	–	213
SWBCF	2	D(427)	R	U	–	8
SWBCP	2	D(423)	R	U	–	8
SWKMS	2	D(410)	R	U	–	8
T	2060	1	R	–	–	3
TC	340	T(960)	R	–	C	–
TCPNLF	1	CNT(32)	R	U	–	202
TCPNLI	1	CNT(31)	R	U	–	202
TCPNLL	1	CNT(30)	R	U	–	202
TCPNLL	1	CNT(30)	R	U	–	202
TCPNLR	1	CNT(33)	R	U	–	202
TCPNLU	1	CNT(29)	R	U	–	202
TDC	200	T(1341)	R	U	C	224
TSC	420	T(1541)	R	–	C	225
TSEC	300	CD(1501)	R	U	C	226
TSS	100	T(1961)	R	U	C	–
TT	24	T(1317)	R	U	C	–
TW	900	6220	R	–	–	3
TWT	400	CD(1101)	R	U	C	230
XFCØDE	1	CNT(27)	R	U	–	202

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TABLE 132. VARIABLE REFERENCES, SUBROUTINE ACNSTR (CONCL)

Variable Name	Size	Common Ref Loc	Variable Description			Table Ref
			Type	Used	Calc	
XKCØDE	1	CNT(19)	R	U	–	202
XPCØDE	1	CNT(20)	R	U	–	202
XRCØDE	1	CNT(28)	R	U	–	202
YBLD	11	T(690)	R	–	C	190
YBUD	11	T(679)	R	–	C	190

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TABLE 133. VARIABLE REFERENCES, SUBROUTINE ACWMS

Variable Name	Size	Common Ref Loc	Variable Description			Table Ref
			Type	Used	Calc	
ACDLB1	1	DØP3(3)	R	U	-	8
ACDLB2	1	DØP3(4)	R	U	-	8
ACDLN1	1	DØP2(3)	R	U	-	8
ACDLN2	1	DØP2(4)	R	U	-	8
ACSSJD	1	D(438)	R	U	-	8
APRTID	12	T(1070)	R	U	-	-
B	1	-	R	U	C	-
BSMAX	1	CNT(6)	R	U	-	202
BSMIN	1	CNT(5)	R	U	-	202
CD	2000	4121	R	-	-	3
CNT	91	T(1541)	R	U	-	202
CRLC	77	T(960)	R	U	C	-
CT	2048	7121	R	-	-	3
C1	1	CNT(1)	R	U	C	202
C2	1	CNT(12)	R	U	C	202
C3	1	CNT(13)	R	U	-	202
C4	1	CNT(14)	R	U	C	202
C7	1	CNT(22)	R	U	-	202
D	2060	2061	R	U	-	3,8
DCBST	11	D(765)	R	U	-	8
DCNØS	11	D(776)	R	U	-	8
DELCØV	1	-	R	U	C	-
DNXL	11	D(942)	R	U	-	8
DNXU	11	D(931)	R	U	-	8
DØP2	4	D(1367)	R	-	-	8
DØP3	4	D(1371)	R	-	-	8
DVFS	11	D(842)	R	U	-	8

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TABLE 133. VARIABLE REFERENCES, SUBROUTINE ACWMS (CONT)

Variable Name	Size	Common Ref Loc	Variable Description			Table Ref
			Type	Used	Calc	
DVFSRS	11	CD(1924)	R	U	-	-
DVRS	11	D(853)	R	U	-	8
EL	15	T(1300)	R	U	C	205
ELW	12	T(1643)	R	U	C	-
ENC	3	CT(2043)	R	U	-	-
ENH	6	D(1164)	R	U	-	8
ENP	9	D(1155)	R	U	-	8
ENQ	100	TW(601)	R	U	-	200
ENX	60	TW(701)	R	U	-	204
E11	2	-	R	U	C	-
FACT	1	-	R	U	C	-
FCR	110	T(1100)	R	U	C	-
FCRC	1	-	R	U	-	-
FCRS	1	-	R	U	-	-
FLAG	1	-	I	U	C	-
HF	1	CNT(25)	R	U	C	202
HI	1	-	R	U	C	-
HR	1	CNT(26)	R	U	C	202
HS	1	CNT(24)	R	U	C	202
I	1	-	I	U	C	-
IEL	165	TW(1)	R	U	C	206
ILCASE	1	ND(41)	I	U	-	9
ISEC	1	ND(62)	I	U	C	9
J	1	-	I	U	C	-
K	1	-	I	U	C	-
KK	1	-	I	U	C	-

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TABLE 133. VARIABLE REFERENCES, SUBROUTINE ACWMS (CONT)

Variable Name	Size	Common Ref Loc	Variable Description			Table Ref
			Type	Used	Calc	
LCASE	1	-	I	U	C	-
N	1	-	I	U	C	-
NB	1	-	I	U	C	-
ND	100	6121	I	U	-	3,9
NMAX	1	ND(31)	I	U	C	9
NSPAR	1	CNT(21)	E	U	C	202
NSPMAX	1	CNT(18)	R	U	-	202
NSPMIN	1	CNT(17)	R	U	-	202
NSTAT	1	ND(55)	I	U	C	9
P	20	T(1896)	R	U	C	-
PM	1	-	R	U	C	-
PP	1	-	R	U	C	-
R	1	-	R	U	-	-
RMAX	1	-	R	U	C	-
SFCØDE	1	ND(45)	I	U	C	9
SKCØDE	1	ND(42)	I	U	C	9
SKLLØ	33	CD(294)	R	U	C	-
SKLUØ	33	CD(261)	R	U	C	-
SLCFS	5	D(1470)	R	U	-	8
SLLMIN	1	CNT(9)	R	U	C	202
SLUMIN	1	CNT(8)	R	U	C	202
SPB	33	T(1232)	R	U	C	207
SPCØDE	1	ND(43)	I	U	C	9
SPCRUH	11	T(1632)	R	U	C	-
SPN	33	T(1265)	R	U	C	208
SRCØDE	1	ND(46)	I	U	C	9

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TABLE 133. VARIABLE REFERENCES, SUBROUTINE ACWMS (CONCL)

Variable Name	Size	Common Ref Loc	Variable Description			Table Ref
			Type	Used	Calc	
STRESS	1320	CT(1)	R	U	C	203
SWBCP	2	D(423)	R	U	-	8
T	2060	1	R	-	-	3,34,190
TBFS	11	T(153)	R	U	-	34
TBRS	11	T(165)	R	U	-	34
TCPNLF	1	CNT(32)	R	U	-	202
TCPNLI	1	CNT(31)	R	U	-	202
TCPNLL	1	CNT(30)	R	U	-	202
TCPNLR	1	CNT(33)	R	U	-	202
TCPNLU	1	CNT(29)	R	U	-	202
TSEC	300	CP(1501)	R	U	-	226
THICK	2	T(1916)	R	U	C	—
TW	900	6221	R	U	-	3
TYPE	1	ND(44)	I	U	C	9
V	660	CT(1321)	R	U	-	198
W	22	CT(1981)	R	U	-	—
WEIGH	11	T(1665)	R	U	-	—
WEIGP	10	T(1655)	R	U	C	—
WIDE	1	-	R	U	C	—
WS	8	T(1315)	R	U	C	—
XEL	18	T(1323)	R	U	C	—
XFCØDE	1	CNT(27)	R	U	-	202
XKCØDE	1	CNT(19)	R	U	-	202
XPCØDE	1	CNT(20)	R	U	-	202
XRCØDE	1	CNT(28)	R	U	-	202
XTYPE	1	CNT(10)	R	U	-	202
YBLI	11	TSEC(188)	R	U	-	226
YBUI	11	TSEC(133)	R	U	-	226
YST	11	T(511)	R	U	-	190

TABLE 134. VARIABLE REFERENCES, SUBROUTINE CKSTAB

Variable Name	Size	Common Ref Loc	Variable Description			Table Ref
			Type	Used	Calc	
A	1	–	R	U	C	–
ADD	1	–	R	U	C	–
APRTID	12	T(1070)	R	U	–	–
B	1	ARG	R	U	C	–
B1	1	–	R	U	C	–
B2	1	–	R	U	C	–
B3	1	–	R	U	C	–
CØMP	1	–	R	U	C	–
CT	2048	7121	R	–	–	3
C1	1	–	R	U	C	–
D	2060	2061	R	–	–	3,8
DELTA	1	–	R	U	C	–
D11	1	–	R	U	C	–
D12	1	–	R	U	C	–
D22	1	–	R	U	C	–
D66	1	–	R	U	C	–
ENH	6	D(1164)	R	U	–	8
ENP	9	D(1155)	R	U	–	8
ENQ	100	TW(601)	R	U	–	200
FACT	1	ARG	R	U	C	–
FCRC	1	ARG	R	–	C	–
FCRS	1	ARG	R	–	C	–
FS	1	–	R	U	C	–
G	20	CT(2023)	R	U	–	–
KT	1	–	R	U	C	–
KV	1	–	R	U	C	–
L	1	ARG	R	U	C	–

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TABLE 134. VARIABLE REFERENCES, SUBROUTINE CKSTAB (CONT)

Variable Name	Size	Common Ref Loc	Variable Description			Table Ref
			Type	Used	Calc	
LCASE	1	ARG	I	U	C	–
M	1	ARG	R	U	C	–
N	1	ARG	R	U	C	–
NBR	1	–	I	U	C	–
ND	100	6121	I	–	–	3,9
NMAX	1	ND(31)	I	U	C	9
NSTAT	1	ND(55)	I	U	–	9
NUXY	1	–	R	U	C	–
NX	1	–	R	U	C	–
NXCR	1	–	R	U	C	–
NXP	1	ARG	R	U	C	–
NXY	1	ARG	R	U	C	–
NXYCR	1	–	R	U	C	–
ØLD	1	–	R	U	C	–
R	1	ARG	R	U	C	–
RC	1	–	R	U	C	–
RS	1	–	R	U	C	–
RSSQ	1	–	R	U	C	–
T	2060	2061	R	–	–	3
TCHPNL	1	ARG	R	U	C	–
TF	1	–	R	U	C	–
THETA	1	–	R	U	C	–
THICK	1	–	R	U	C	–
TW	900	6221	R	–	–	3
U	1	–	R	U	C	–
X	1	–	R	U	C	–
XX	1	–	R	U	C	–

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TABLE 134. VARIABLE REFERENCES, SUBROUTINE CKSTAB (CONCL)

Variable Name	Size	Common Ref Loc	Variable Description			Table Ref
			Type	Used	Calc	
Y	1	–	R	U	C	–
YY	1	–	R	U	C	–
Z	1	–	R	U	C	–

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TABLE 135. VARIABLE REFERENCES, SUBROUTINE WEIGH1

Variable Name	Size	Common Ref Loc	Variable Description			Table Ref
			Type	Used	Calc	
APRTID	12	T(1070)	R	U	–	–
CFRIB	1	D(400)	R	U	–	8
CNT	38	T(1541)	R	–	–	202
CT	2048	7121	R	–	–	3
C10	1	CNT(35)	R	U	–	202
C4	1	CNT(14)	R	U	–	202
C7	1	CNT(22)	R	U	–	202
C9	1	CNT(34)	R	U	–	202
D	2060	2061	R	U	–	3,8
DBRHØ	1	D(464)	R	U	–	8
DKMIR	1	D(24)	R	U	–	8
EL	15	T(1300)	R	U	–	205
ENC	3	CT(2043)	R	U	–	–
ENP	9	D(1155)	R	U	–	8
HF	1	CNT(25)	R	U	–	202
HR	1	CNT(26)	R	U	–	202
HS	1	CNT(24)	R	U	–	202
I	1	–	I	U	C	–
IW	1	–	I	U	C	–
K	1	–	I	U	C	–
N	1	–	I	U	C	–
ND	100	6121	I	U	–	3,9
NSPAR	1	CNT(21)	R	U	–	202
NSTAT	1	ARG	I	U	C	–
PFFSCV	1	CT(2047)	R	U	–	–
PFFSSP	1	CT(2048)	R	U	–	–
SFCØDE	1	ND(45)	I	U	–	9

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TABLE 135. VARIABLE REFERENCES, SUBROUTINE WEIGH1 (CONCL)

Variable Name	Size	Common Ref Loc	Variable Description			Table Ref
			Type	Used	Calc	
SKCØDE	1	ND(42)	I	U	–	9
SLCFS	5	D(1470)	R	U	–	8
SPB	33	T(1232)	R	U	–	207
SPCØDE	1	ND(43)	I	U	–	9
SPN	33	T(1265)	R	U	–	208
SRCØDE	1	ND(46)	I	U	–	9
SWBCF	2	D(427)	R	U	–	8
SWBCP	2	D(423)	R	U	–	8
SWKMS	2	D(410)	R	U	–	8
T	2060	1	R	–	–	3
TCPNLF	1	CNT(32)	R	U	–	202
TCPNLI	1	CNT(31)	R	U	–	202
TCPNLL	1	CNT(30)	R	U	–	202
TCPNLR	1	CNT(33)	R	U	–	202
TCPNLU	1	CNT(29)	R	U	–	202
W	30	–	R	U	C	210
WEI	1	ARG	R	U	C	--
W1	22	CT(1981)	R	U	–	–

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TABLE 136. VARIABLE REFERENCES, SUBROUTINE ACWFDH

Variable Name	Size	Common Ref Loc	Variable Description			Table Ref
			Type	Used	Calc	
ACFDHC	1	D(434)	R	U	-	8
CNT	91	T(1541)	R	-	-	202
CNX	1	TF(7)	R	-	C	209
CRHØ	1	TF(8)	R	U	C	209
CRLC	77	T(960)	R	U	C	-
CRNXCP	1	TF(28)	R	U	-	209
CRPCCP	1	TF(29)	R	U	-	209
CRWNX	1	TF(18)	R	U	-	209
CT	2048	7121	R	-	-	3
C3	1	CNT(13)	R	U	-	202
C8	1	CNT(23)	R	U	-	202
D	2060	2061	R	-	-	3,8
EL	15	T(1300)	R	U	C	205
ENH	6	D(1164)	R	U	-	8
ENP	9	D(1155)	R	U	-	8
FCR	110	T(1100)	R	U	C	-
HC	1	TF(25)	R	U	-	209
HML	1	TF(9)	R	U	C	209
I	1	-	I	U	C	-
IC	1	-	I	U	C	-
ILCASE	1	ND(41)	I	U	-	9
IS	1	-	I	U	C	-
L	1	-	I	U	C	-
N	1	-	I	U	C	-
ND	100	6121	I	-	-	3,9
NMAX	1	ND(31)	I	U	-	9

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TABLE 136. VARIABLE REFERENCES, SUBROUTINE ACWFDH (CONCL)

Variable Name	Size	Common Ref Loc	Variable Description			Table Ref
			Type	Used	Calc	
NS	1	-	I	U	C	-
NS2	1	-	I	U	C	-
P	20	T(1896)	R	-	C	-
PCRUA	1	TF(20)	R	U	-	209
PCRUSH	1	TF(19)	R	U	-	209
RCC	1	TF(22)	R	U	-	209
RCW	1	TF(21)	R	U	-	209
RHØCC	1	TF(24)	R	U	-	209
RHØCW	1	TF(23)	R	U	-	209
RHØMAX	1	TF(30)	R	U	-	209
SPB	33	T(1232)	R	U	C	207
SPCRUH	11	T(1632)	R	-	C	-
SPN	33	T(1265)	R	-	C	208
STRESS	1320	CT(1)	R	U		203
T	2060	1	R	-	-	3
TF	40	T(2021)	R	U	C	209
TFCØV	2	TF(10)	R	U	-	209
W	22	CT(1981)	R	U	-	-

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TABLE 137. VARIABLE REFERENCES, SUBROUTINE CKSFDH

Variable Name	Size	Common Ref Loc	Variable Description			Table Ref
			Type	Used	Calc	
APRTID	12	T(1070)	R	U	-	-
CEP	1	TF(15)	R	U	C	209
CGP	1	TF(16)	R	U	C	209
CNX	1	TF(17)	R	U	-	209
CRHØ	1	TF(8)	R	U	-	209
CRNXCP	1	TF(28)	R	-	C	209
CRPCCP	1	TF(29)	R	-	C	209
CRWNX	1	TF(18)	R	U	C	209
D	2060	2061	R	U	-	3,8
EB	1	TF(14)	R	U	C	209
ENH	6	D(1164)	R	U	-	8
ENP	9	D(1155)	R	U	-	8
ENQ	100	TW(601)	R	U	-	200
E11	1	TF(12)	R	U	C	209
E22	1	TF(13)	R	U	C	209
FCW	1	TF(17)	R	U	C	209
FDHCY	20	TW(841)	R	U	-	-
FDHFE	20	TW(861)	R	U	-	-
FDHFG	20	TW(881)	R	U	-	-
HC	1	TF(25)	R	U	C	209
HML	1	TF(9)	R	U	-	209
I	1	-	I	U	C	-
J	1	-	I	U	C	-
K	1	-	I	U	C	-
KK	1	-	I	U	C	-
L	1	-	I	U	C	-

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TABLE 137. VARIABLE REFERENCES, SUBROUTINE CKSFDH (CONCL)

Variable Name	Size	Common Ref Loc	Variable Description			Table Ref
			Type	Used	Calc	
LCASE	1	ARG	I	U	C	-
N	1	-	I	U	C	-
ND	100	6121	I	-	-	3,9
NMAX	1	ND(31)	I	U	C	9
NSTAT	1	ND(55)	I	U	-	9
PCRUA	1	TF(20)	R	U	C	209
PCRUSH	1	TF(19)	R	U	C	209
RCC	1	TF(22)	R	-	C	209
RCW	1	TF(21)	R	-	C	209
RHØCC	1	TF(24)	R	U	C	209
RHØCW	1	TF(23)	R	U	C	209
RHOMAX	1	TF(30)	R	U	C	209
T	2060	1	R	-	-	3
TF	40	T(2021)	R	U	C	209
TFCØV	2	TF(10)	R	U	C	209
TW	900	6221	R	-	-	3

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TABLE 138. VARIABLE REFERENCES, SUBROUTINE ACWRBS

Variable Name	Size	Common Ref Loc	Variable Description			Table Ref
			Type	Used	Calc	
ACDLB1	1	DØP3(3)	R	U	-	8
ACDLB2	1	DØP3(4)	R	U	-	8
ACDLN1	1	DØP2(3)	R	U	-	8
ACDLN2	1	DØP2(4)	R	U	-	8
ACSSID	1	D(438)	R	U	-	8
APRTID	12	T(1070)	R	U	-	-
B	1	TX(30)	R	U	C	211
BSMAX	1	CNT(6)	R	U	-	202
BSMIN	1	CNT(5)	R	U	-	202
CD	2000	4121	R	-	-	3
CNT	91	T(1541)	R	U	-	202
CRLC	77	T(960)	R	U	C	-
CT	2048	7121	R	-	-	3
C1	1	CNT(1)	R	U	C	202
C2	1	CNT(12)	R	U	C	202
C3	1	CNT(13)	R	U	-	202
C4	1	CNT(14)	R	U	C	202
D	2060	2061	R	U	-	3,8
DCBST	11	D(765)	R	U	-	8
DCNØS	11	D(776)	R	U	-	8
DELCØV	1	-	R	u	C	-
DNXL	11	D(942)	R	U	-	8
DNXU	11	D(931)	R	U	-	8
DØP2	4	D(1367)	R	-	-	8
DØP3	4	D(1371)	R	-	-	8
DVFS	11	D(842)	R	U	-	8

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TABLE 138. VARIABLE REFERENCES, SUBROUTINE ACWRBS (CONT)

Variable Name	Size	Common Ref Loc	Variable Description			Table Ref
			Type	Used	Calc	
DVFSRS	11	CD(1924)	R	U	-	-
DVRS	11	D(853)	R	U	-	8
EL	15	T(1300)	R	U	C	205
ELW	12	T(1643)	R	U	C	-
ENP	9	D(1155)	R	U	-	8
ENX	60	TW(701)	R	U	-	204
FACT	1	-	R	U	C	-
FCR	110	T(1100)	R	U	C	-
FCRC	1	-	R	U	-	-
FCRS	1	-	R	U	-	-
FLAG	1	-	I	U	C	-
HF	1	CNT(25)	R	U	C	202
HI	1	-	R	U	C	-
HR	1	CNT(26)	R	U	C	202
HS	1	CNT(24)	R	U	C	202
I	1	-	I	U	C	-
IEL	165	TW(1)	R	U	C	206
ILCASE	1	ND(41)	I	U	-	9
ISEC	1	ND(62)	I	U	C	9
J	1	-	I	U	C	-
K	1	-	I	U	C	-
KK	1	-	I	U	C	-
LCASE	1	-	I	U	C	-
NB	1	-	I	U	C	-
ND	100	6121	I	-	-	3,9
NMAX	1	ND(31)	I	-	C	9

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TABLE 138. VARIABLE REFERENCES, SUBROUTINE ACWRBS (CONT)

Variable Name	Size	Common Ref Loc	Variable Description			Table Ref
			Type	Used	Calc	
NSTAT	1	ND(55)	I	U	C	9
NSTR	1	CNT(21)	R	U	C	202
NSTRMN	1	CNT(17)	R	U	-	202
NSTRMX	1	CNT(18)	R	U	-	202
P	20	T(1896)	R	U	-	-
R	1	-	R	U	-	-
SFCØDE	1	ND(45)	I	U	C	9
SKCØDE	1	ND(42)	I	U	-	9
SKLLØ	33	CD(294)	R	U	C	-
SKLUØ	33	CD(261)	R	U	C	-
SLCFS	5	D(1470)	R	U	-	8
SLLMIN	1	CNT(9)	R	U	-	202
SLUMIN	1	CNT(8)	R	U	-	202
SPB	33	T(1232)	R	U	C	207
SPCØDE	1	ND(43)	I	U	C	9
SPN	33	T(1265)	R	U	C	208
SRCØDE	1	ND(46)	I	U	C	9
STLLØ	33	CD(360)	R	U	C	-
STLMIN	1	CNT(16)	R	U	-	202
STLUØ	33	CD(327)	R	U	C	-
STRESS	1320	CT(1)	R	U	C	203
STRING	220	T(1676)	R	U	-	213
STUMIN	1	CNT(15)	R	U	-	202
SWBCP	2	D(423)	R	U	-	8
T	2060	2061	R	-	-	3,34,190
TBFS	11	T(153)	R	U	-	34

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TABLE 138. VARIABLE REFERENCES, SUBROUTINE ACWRBS (CONCL)

Variable Name	Size	Common Ref Loc	Variable Description			Table Ref
			Type	Used	Calc	
TBRS	11	T(165)	R	U	-	34
TCPNLF	1	CNT(32)	R	U	-	202
TCPNLR	1	CNT(33)	R	U	-	202
TSEC	300	CD(1501)	R	U	-	226
TW	900	6221	R	U	-	3
TX	160	CD(1)	R	-	C	211
TXS	100	CD(161)	R	-	C	212
TYPE	1	ND(44)	I	U	C	9
V	660	CT(1321)	R	U	-	-
W	22	CT(1981)	R	U	-	-
WEIGH	11	T(1665)	R	U	-	-
WEIGP	10	T(1655)	R	U	C	-
WIDE	1	TX(31)	R	U	C	211
WS	8	T(1315)	R	U	C	-
XEL	18	T(1323)	R	U	C	-
XFCØDE	1	CNT(27)	R	U	-	202
XPCØDE	1	CNT(20)	R	U	-	202
XRCØDE	1	CNT(28)	R	U	-	202
XTYPE	1	CNT(10)	R	U	-	202
YBLI	11	TSEC(188)	R	U	-	226
YBUI	11	TSEC(133)	R	U	-	226
YST	11	T(511)	R	U	-	190

TABLE 139. VARIABLE REFERENCES, SUBROUTINE ACWSTR

Variable Name	Size	Common Ref Loc	Variable Description			Table Ref
			Type	Used	Calc	
AESTI	1	-	R	U	C	-
AESTR	1	TX(58)	R	-	C	211
APRTID	12	T(1070)	R	U	-	-
ASKT	1	TX(5)	R	U	-	211
ASTR	1	TX(55)	R	U	C	211
ASTRA	1	TX(40)	R	U	C	211
ASTRØ	1	TX(49)	R	U	C	211
BF	1	TX(63)	R	U	-	211
BFMIN	1	CNT(42)	R	U	-	202
BØTA	1	TX(78)	R	U	-	211
BR	1	-	R	U	C	-
BRIB	1	TX(54)	R	U	C	211
BRIPMN	1	TX(52)	R	U	C	211
BRIBMX	1	TX(53)	R	U	C	211
BRIBR	1	TX(47)	R	U	C	211
BRMAX	1	CNT(4)	R	U	-	202
BRMIN	1	CNT(3)	R	U	-	202
BRRL	11	TX(265)	R	-	C	211
BRRU	11	TX(254)	R	-	C	211
BS	1	TX(30)	R	U	-	211
BW	1	TX(62)	R	U	-	211
BWL	1	TXS(30)	R	U	-	212
BWLT	1	TXS(32)	R	U	-	212
BWMIN	1	CNT(40)	R	U	-	202
BWØTS	1	TX(76)	R	U	-	211
BWT	1	TXS(31)	R	U	-	212
CD	2000	4121	R	-	-	3

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TABLE 139. VARIABLE REFERENCES, SUBROUTINE ACWSTR (CONT)

Variable Name	Size	Common Ref Loc	Variable Description			Table Ref
			Type	Used	Calc	
CF	1	-	R	U	C	-
CFR1B	1	D(400)	R	-	-	8
CNT	91	T(1541)	R	-	-	202
CRLC	77	T(960)	R	U	C	-
CT	2048	7121	R	-	-	3
C3	1	CNT(13)	R	U	-	202
C8	1	CNT(23)	R	U	-	202
D	2060	2061	R	-	-	3,8
DBRHØ	1	D(464)	R	U	-	8
DC	100	D(1401)	R	U	-	10
DELL	1	TX(39)	R	U	C	211
DLBMI	1	TX(11)	R	U	C	211
DLENI	1	TX(12)	R	U	C	211
DLSKI	1	TX(42)	R	U	C	211
DLSTRL	1	TX(48)	R	U	C	211
D11	1	-	R	U	C	-
EIREQD	1	TX(68)	R	U	C	211
EIRIB	1	TX(69)	R	U	C	211
EL	15	T(1300)	R	U	C	205
ELL	1	TX(32)	R	U	C	211
ELØ	1	TX(33)	R	U	C	211
ELSK	1	TX(36)	R	U	C	211
EMØ	1	TX(34)	R	U	C	211
EMSK	1	TX(37)	R	U	-	211
ENC	3	CT(2043)	R	U	-	-
ENØ	1	TX(35)	R	U	C	211

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TABLE 139. VARIABLE REFERENCES, SUBROUTINE ACWSTR (CONT)

Variable Name	Size	Common Ref Loc	Variable Description			Table Ref
			Type	Used	Calc	
ENP	9	D(1155)	R	U	-	8
ENQ	100	TW(601)	R	U	-	200
ENSK	1	TX(38)	R	U	C	211
ENX	60	TW(701)	R	U	-	204
ERIB	1	TX(70)	R	U	C	211
ESK	20	TX(81)	R	U	-	211
FACT	1	-	R	U	C	-
FCR	110	T(1100)	R	-	C	-
FCRC	1	-	R	U	-	-
FCRS	1	-	R	U	-	-
FSKL	11	TW(232)	R	-	C	-
FSKU	11	TW(188)	R	-	C	-
FSTL	11	TW(243)	R	-	C	-
FSTR	1	TX(60)	R	U	-	211
FSTU	11	TX(199)	R	-	C	211
HS	1	CNT(24)	R	U	-	202
I	1	-	I	U	C	-
IEL	165	TW(1)	R	U	-	206
ILCASE	1	ND(41)	I	U	-	9
ILS	1	ND(34)	I	U	C	9
ILS2	1	-	I	U	C	-
ISKIN	1	ND(32)	I	U	C	9
ISTR	1	TX(64)	R	U	-	211
K	1	-	I	U	C	-
L	1	-	I	U	C	-
LCASE	1	-	I	U	C	-

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TABLE 139. VARIABLE REFERENCES, SUBROUTINE ACWSTR (CONT)

Variable Name	Size	Common Ref Loc	Variable Description			Table Ref
			Type	Used	Calc	
LCCR	1	ND(29)	I	U	-	9
LSTID	1	-	I	U	-	-
N	1	-	I	U	C	-
ND	100	6121	I	-	-	3,9
NLR	1	ND(36)	I	U	C	9
NLS	1	ND(35)	I	U	C	9
NMAX	1	ND(31)	I	U	-	9
NN	1	-	I	U	C	-
NSTAT	1	ND(55)	I	U	-	9
NSTIFF	1	ND(33)	I	U	C	9
NSTR	1	CNT(21)	R	U	-	202
P	20	T(1896)	R	U	C	-
PCCRI	1	TX(18)	R	U	-	211
PFFSCV	1	CT(2047)	R	U	-	-
PFFSSP	1	CT(2048)	R	U	-	-
PL	1	-	R	U	C	-
PM	1	-	R	U	C	-
PP	1	-	R	U	C	-
PSCRI	1	TX(19)	R	U	-	211
PSKCRL	1	TX(14)	R	U	-	211
PSTCRL	1	TX(15)	R	U	-	211
R	1	-	R	U	-	-
RSKPØA	1	TX(8)	R	U	-	211
RSTPØA	1	TX(9)	R	U	-	211
SKLLMN	1	TX(44)	R	U	C	211
SKLLØ	33	CD(294)	R	U	-	-

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TABLE 139. VARIABLE REFERENCES, SUBROUTINE ACWSTR (CONT)

Variable Name	Size	Common Ref Loc	Variable Description			Table Ref
			Type	Used	Calc	
SKLUMN	1	TX(43)	R	U	C	211
SKLUØ	33	CD(261)	R	U	-	-
SKMNL	1	TX(41)	R	U	C	211
SKNXL	11	TX(210)	R	-	C	211
SKNXU	11	TX(166)	R	-	C	211
SLDØ	1	-	R	U	C	-
SLKØ	1	-	R	U	C	-
SLTØ	1	-	R	U	C	-
SPOØDE	1	ND(43)	I	U	-	9
SPCRUH	11	T(1632)	R	-	C	-
STFNF	5	D(1353)	R	U	-	8
STFNH	5	D(1348)	R	U	-	8
STFNT	1	TX(79)	R	U	C	211
STLLØ	33	CD(360)	R	U	-	-
STLUØ	33	CD(327)	R	U	-	-
STNXL	11	TW(221)	R	-	C	-
STNXU	11	TW(177)	R	-	C	-
STRESS	1320	CT(1)	R	U	-	203
STRINC	220	T(1676)	R	-	C	213
STRL	1	TX(56)	R	U	C	211
STRLLM	1	TX(46)	R	U	C	211
STRLØ	1	TX(50)	R	U	C	211
STRLT	1	TX(57)	R	U	C	211
STRLTØ	1	TX(51)	R	U	C	211
STRLUM	1	TX(45)	R	U	C	211
T	2060	1	R	-	-	3

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TABLE 139. VARIABLE REFERENCES, SUBROUTINE ACWSTR (CONCL)

Variable Name	Size	Common Ref Loc	Variable Description			Table Ref
			Type	Used	Calc	
TBATT	1	TX(75)	R	U	C	211
TBCØV	1	TX(72)	R	U	C	211
TBFIL	1	TX(74)	R	U	C	211
TBRIB	1	TX(73)	R	U	C	211
TBSTR	1	TX(59)	R	U	C	211
TBTØT	1	TX(71)	R	U	C	211
TCPNLI	1	CNT(31)	R	U	-	202
TRIB	1	TX(67)	R	U	C	211
TSK	1	TX(4)	R	U	-	211
TSTR	1	TX(60)	R	U	C	211
TSTRØ	1	TX(80)	R	U	C	211
TW	900	6221	R	-	-	3
TX	160	CD(1)	R	U	-	211
TXS	100	CD(161)	R	U	C	212
TYPE	1	ND(44)	I	U	-	9
WIDE	1	TX(31)	R	U	-	211
XSTIFF	1	CNT(48)	R	U	C	202
XSTRL	1	CNT(2)	R	U	-	202
XSTRU	1	CNT(1)	R	U	-	202
YBAR	1	TX(65)	R	U	-	211
YPLATE	1	TX(66)	R	U	C	211
YPLATI	1	-	R	U	C	-

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TABLE 140. VARIABLE REFERENCES, SUBROUTINE ACMRSK

Variable Name	Size	Common Ref Loc	Variable Description			Table Ref
			Type	Used	Calc	
APRTID	12	T(1070)	R	U	-	-
ASKL	1	TX(6)	R	U	C	211
ASKT	1	TX(5)	R	U	C	211
ASTR	1	ARG	R	U	C	-
ASTRL	1	TX(7)	R	U	C	211
BFØTS	1	TX(77)	R	-	C	211
BØTI	1	-	R	U	C	-
BØTK	1	-	R	U	C	-
BS	1	TX(30)	R	U	-	211
BWØTS	1	TX(76)	R	U	C	211
CD	2000	4121	R	-	-	3
CNT	91	T(1541)	R	-	-	202
CT	2048	7121	R	-	-	3
C3	1	CNT(13)	R	U	-	202
C8	1	CNT(23)	R	U	-	202
D	2060	2061	R	-	-	3,8
DLBMI	1	TX(11)	R	U	C	211
DLBNI	1	TX(12)	R	U	C	211
DPØAEP	1	D(445)	R	U	-	8
DSTRC5	1	D(598)	R	U	-	8
DSTRC6	1	D(599)	R	U	-	8
D11	1	-	R	U	C	-
D12	1	-	R	U	C	-
D22	1	-	R	U	C	-
EBØT	20	TW(819)	R	U	-	-
ELØ	1	TX(33)	R	U	-	211

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TABLE 140. VARIABLE REFERENCES, SUBROUTINE ACMRSK (CONT)

Variable Name	Size	Common Ref Loc	Variable Description			Table Ref
			Type	Used	Calc	
EMI	1	TX(1)	R	U	C	211
EMØ	1	TX(34)	R	U	-	211
ENI	1	TX(2)	R	U	C	211
ENØ	1	TX(35)	R	U	-	211
ENP	9	D(1155)	R	U	-	8
ENQ	100	TW(601)	R	U	-	200
ENX	60	TW(701)	R	U	-	204
BØØ	1	TX(29)	R	U	C	211
ESK	20	TX(81)	R	U	C	211
ESKCRL	1	TX(13)	R	U	C	211
E11	1	-	R	U	C	-
E12	1	-	R	U	C	-
E22	1	-	R	U	C	-
FSTR	1	TX(61)	R	U	C	211
G	20	CT(2023)	R	U	-	-
I	1	-	I	U	C	-
ILCASE	1	ND(41)	I	U	-	9
ISKIN	1	ND(32)	I	U	-	9
LCCR	1	ND(29)	I	U	C	9
LSTRCR	1	ND(37)	I	-	C	9
N	1	-	I	U	C	-
NCR	1	-	I	U	C	-
ND	100	6121	I	-	-	3,9
NL	1	-	I	U	C	-
NMAX	1	ND(31)	I	U	C	9
NMAX1	1	ND(30)	I	U	C	9

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TABLE 140. VARIABLE REFERENCES, SUBROUTINE ACMRSK (CONT)

Variable Name	Size	Common Ref Loc	Variable Description			Table Ref
			Type	Used	Calc	
NSTAT	1	ND(55)	I	U	-	9
PCCRI	1	TX(18)	R	U	C	211
PCI	1	TX(24)	R	U	C	211
PNXCRL	1	TX(16)	R	U	C	211
PNXI	1	TX(25)	R	U	C	211
PNXYI	1	TX(26)	R	U	C	211
PSCRI	1	TX(19)	R	U	C	211
PSK	20	TX(101)	R	U	C	211
PSKCCR	1	-	R	U	C	-
PSKCRL	1	TX(14)	R	U	C	211
PSKSCR	1	-	R	U	C	-
PSTCRL	1	TX(15)	R	U	C	211
PSTR	20	TX(121)	R	U	C	211
QSKCRL	1	TX(17)	R	U	C	211
RAE	1	TX(10)	R	U	C	211
RASKI	1	TX(27)	R	U	C	211
RASTI	1	TX(28)	R	U	C	211
RCI	1	TX(22)	R	U	C	211
RI	1	TX(21)	R	U	C	211
RMAX	1	TX(20)	R	U	C	211
RSI	1	TX(23)	R	U	C	211
RSKPØA	1	TX(8)	R	U	C	211
RSTPØA	1	TX(9)	R	U	C	211
SKALL	1	-	R	U	C	-
SKAPL	1	-	R	U	C	-
SKR	20	TX(141)	R	U	C	211

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TABLE 140. VARIABLE REFERENCES, SUBROUTINE ACMRSK (CONCL)

Variable Name	Size	Common Ref Loc	Variable Description			Table Ref
			Type	Used	Calc	
SKRMX	1	TX(3)	R	U	C	211
STALL	1	-	R	U	C	-
STAPL	1	-	R	U	C	-
STRESS	1320	CT(1)	R	U	-	203
STRL	1	ARG	R	U	C	-
T	2060	1	R	-	-	3
THETA	1	-	R	U	C	-
TSK	1	TX(4)	R	U	C	211
TW	900	6221	R	-	-	3
TX	160	CD(1)	R	-	-	211
XX	1	-	R	U	C	-

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TABLE 141. VARIABLE REFERENCES, SUBROUTINE ACSTRG

Variable Name	Size	Common Ref Loc	Variable Description			Table Ref
			Type	Used	Calc	
AF	1	-	R	U	C	-
APRTID	12	T(1070)	R	U	-	-
ASTR	1	TX(55)	R	U	-	211
AW	1	-	R	U	C	-
BF	1	TX(63)	R	U	C	211
BFI	1	TXS(39)	R	U	C	212
BFMAX	1	CNT(41)	R	U	-	202
BFMIN	1	CNT(42)	R	U	-	202
BFØTS	1	TX(77)	R	U	C	211
BØTA	1	TX(78)	R	U	C	211
BØTF	1	TX(40)	R	U	C	211
BW	1	TX(62)	R	U	C	211
BWA	1	-	R	U	C	-
BWI	1	TXS(38)	R	U	C	212
BWL	1	TXS(30)	R	U	C	212
BWLI	1	TXS(35)	R	U	C	212
BWLT	1	TXS(32)	R	U	C	212
BWLTI	1	TXS(37)	R	U	C	212
BWMAX	1	CNT(7)	R	U	-	202
BWMIN	1	CNT(40)	R	U	-	202
BWØTS	1	TX(76)	R	U	C	211
BWT	1	TXS(31)	R	U	C	212
BWTI	1	TXS(36)	R	U	C	212
CD	2000	4121	R	-	-	3
CNT	91	T(1541)	R	-	-	202
D	2060	2061	R	-	-	3,8
DBØTEP	1	D(444)	R	U	-	8

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TABLE 141. VARIABLE REFERENCES, SUBROUTINE ACSTRG (CONCL)

Variable Name	Size	Common Ref Loc	Variable Description			Table Ref
			Type	Used	Calc	
ENP	9	D(1155)	R	U	-	8
ID	1	ARG	I	U	C	-
ISTR	1	TX(64)	R	U	C	211
ND	100	6121	I	-	-	3,9
NSTAT	1	ND(55)	I	U	-	9
NSTIFF	1	ND(33)	I	U	-	9
STFNF	5	D(1353)	R	U	-	8
STFNH	5	D(1348)	R	U	-	8
STFNT	1	TXS(79)	R	U	-	212
STRL	1	TX(56)	R	U	-	211
STRLØ	1	TX(50)	R	U	-	211
STRLT	1	TX(57)	R	U	-	211
T	2060	1	R	-	-	3
TSTR	1	TX(60)	R	U	-	211
TX	160	CD(1)	R	-	-	211
TXS	100	CD(161)	R	-	-	212
YBAR	1	TX(65)	R	U	C	211

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TABLE 142. VARIABLE REFERENCES, SUBROUTINE WEIGH2

Variable Name	Size	Common Ref Loc	Variable Description			Table Ref
			Type	Used	Calc	
APRTID	12	T(1070)	R	U	-	-
CFRIB	1	D(400)	R	U	-	8
CNT	38	T(1541)	R	-	-	202
CT	2048	7121	R	-	-	3
C4	1	CNT(14)	R	U	-	202
D	2060	2061	R	U	-	3,8
DBRHØ	1	D(464)	R	U	-	8
DKMIR	1	D(24)	R	U	-	8
EL	15	T(1300)	R	U	-	205
ENC	3	CT(2043)	R	U	-	-
ENP	9	D(1155)	R	U	-	8
HF	1	CNT(25)	R	U	-	202
HR	1	CNT(26)	R	U	-	202
HS	1	CNT(24)	R	U	-	202
I	1	-	I	U	C	-
IW	1	-	I	U	C	-
K	1	-	I	U	C	-
N	1	-	I	U	C	-
ND	100	6121	I	-	-	3,9
NSTAT	1	ARG	I	U	C	-
PFFSCV	1	CT(2047)	R	U	-	-
PFFSSP	1	CT(2048)	R	U	-	-
SFCØDE	1	ND(45)	I	U	-	9
SLCFS	5	D(1470)	R	U	-	8
SPCØDE	1	ND(43)	I	U	-	9
SPN	33	T(1265)	R	U	-	208

TABLE 142. VARIABLE REFERENCES, SUBROUTINE WEIGH2 (CONCL)

Variable Name	Size	Common Ref Loc	Variable Description			Table Ref
			Type	Used	Calc	
SRCØDE	1	ND(46)	I	U	-	9
STRING	220	T(1676)	R	U	-	213
SWBCF	2	D(427)	R	U	-	8
SWBCP	2	D(423)	R	U	-	8
SWKMS	2	D(410)	R	U	-	8
T	2060	1	R	-	-	3
TCPNLF	1	CNT(32)	R	U	-	202
TCPNLI	1	CNT(31)	R	U	-	202
TCPNLR	1	CNT(33)	R	U	-	202
W	35	-	R	U	C	214
WEI	1	ARG	R	U	C	-
W1	22	CT(1981)	R	U	-	-

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TABLE 143. VARIABLE REFERENCES, SUBROUTINE ASTIFF

Variable Name	Size	Common Ref Loc	Variable Description			Table Ref
			Type	Used	Calc	
ACID	1	D(430)	R	U	-	8
CD	2000	4121	R	U	C	3,217
CNT	38	T(1541)	R	-	-	202
C7	1	CNT(22)	R	U	-	202
D	2060	2061	R	U	-	3,8
DLRGJM	44	CD(309)	R	U	C	217
ECFL	11	CD(298)	R	U	C	217
ECFØ	11	CD(210)	R	U	C	217
ECMD	11	CD(78)	R	U	C	217
EICD	11	CD(56)	R	U	C	217
EICFL	11	CD(276)	R	U	C	217
EICFØ	11	CD(188)	R	U	C	217
EISFL	11	CD(232)	R	U	-	217
EISFØ	11	CD(144)	R	U	-	217
EISTD	11	CD(12)	R	U	-	217
EIVFD	11	CD(100)	R	U	C	217
EIVFS	11	CD(364)	R	U	-	217
EL	15	T(1300)	R	U	C	205
ENP	9	D(1155)	R	U	-	8
ESFL	11	CD(254)	R	U	-	217
ESFØ	11	CD(166)	R	U	-	217
ESTD	11	CD(34)	R	U	-	217
EVFD	11	CD(122)	R	U	C	217
EVFS	11	CD(386)	R	U	-	217
GCFL	11	CD(287)	R	U	C	217
GCFØ	11	CD(199)	R	U	C	217

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TABLE 143. VARIABLE REFERENCES, SUBROUTINE ASTIFF (CONT)

Variable Name	Size	Common Ref Loc	Variable Description			Table Ref
			Type	Used	Calc	
GCMD	11	CD(67)	R	U	C	217
GJCD	11	CD(45)	R	U	C	217
GJCFL	11	CD(265)	R	U	C	217
GJCFØ	11	CD(177)	R	U	C	217
GJRQD	11	T(668)	R	U	-	190
GJSFL	11	CD(221)	R	U	-	217
GJSFØ	11	CD(133)	R	U	-	217
GJSTD	11	CD(1)	R	U	-	217
GJVFD	11	CD(89)	R	U	C	217
GJVFS	11	CD(353)	R	U	-	217
GSFL	11	CD(243)	R	U	-	217
GSFØ	11	CD(155)	R	U	-	217
GSTD	11	CD(23)	R	U	-	217
GVFD	11	CD(111)	R	U	C	217
GVFS	11	CD(375)	R	U	-	217
I	1	-	I	U	C	-
IDT	1	-	I	U	C	-
IEL	165	TW(1)	R	U	-	206
IP	80	/IPRINT/	I	U	-	7
IWI	4	-	I	U	-	-
IW1	1	IWI(1)	I	U	C	-
IW2	1	IWI(2)	I	U	C	-
IW3	1	IWI(3)	I	U	C	-
IW4	1	IWI(4)	I	U	C	-
IX	1	-	I	U	C	-
K	1	-	I	U	C	-
N	1	-	I	U	C	-

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TABLE 143. VARIABLE REFERENCES, SUBROUTINE ASTIFF (CONCL)

Variable Name	Size	Common Ref Loc	Variable Description			Table Ref
			Type	Used	Calc	
ND	100	6121	I	U	-	3,9
NEL	1	-	I	U	C	-
NSTAT	1	-	I	U	C	-
SLCFS	5	D(1470)	R	U	-	8
SPB	33	T(1232)	R	U	-	207
SPN	33	T(1265)	R	U	-	208
STRING	220	T(1676)	R	U	-	213
SWBCP	2	D(423)	R	U	-	8
T	2060	1	R	-	-	3,34,190
TA	40	CD(401)	R	-	C	216
TBD	11	T(530)	R	U	-	190
TBFS	11	T(153)	R	U	-	34
TBRS	11	T(165)	R	U	-	34
TBW	11	T(542)	R	U	-	190
TCPNLF	1	CNT(32)	R	U	-	202
TCPNLL	1	CNT(30)	R	U	-	202
TCPNLR	1	CNT(33)	R	U	-	202
TCPNLU	1	CNT(29)	R	U	-	202
TEIGJ	4	TW(783)	R	U	-	199
TSF	60	CD(441)	R	U	C	215
TW	900	6221	R	-	-	3
VFID	1	D(251)	R	U	-	8

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TABLE 144. VARIABLE REFERENCES, SUBROUTINE ACEIGJ

Variable Name	Size	Common Ref Loc	Variable Description			Table Ref
			Type	Used	Calc	
AE	1	ARG	R	U	C	-
AEI	1	ARG	R	U	C	-
AG	1	ARG	R	U	C	-
AGJ	1	ARG	R	U	C	-
APRTID	12	T(1070)	R	U	-	-
CD	2000	4121	R	-	-	3,217
D	2060	2061	R	U	-	3,8
DC	100	D(1401)	R	U	-	10
DFREIK	1	DC(4)	R	U	-	10
EL	15	T(1300)	R	U	-	205
ENP	9	D(1155)	R	U	-	8
ENQC	24	TW(787)	R	U	-	201
I	1	-	I	U	C	-
ID	1	ARG	I	U	C	-
K	1	-	I	U	C	-
N	1	-	I	U	C	-
ND	100	6121	I	U	-	3,9
NS	1	ARG	I	U	C	-
REFSTE	4	TW(811)	R	U	-	-
REFSTG	4	TW(815)	R	U	-	-
T	2060	1	R	-	-	3,190
TA	40	CD(401)	R	U	C	216
TBW	11	T(542)	R	U	-	190
TSF	60	CD(441)	R	U	-	215
TW	900	T(6221)	R	-	-	3

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TABLE 145. VARIABLE REFERENCES, FUNCTION XN

Variable Name	Size	Common Ref Loc	Variable Description			Table Ref
			Type	Used	Calc	
CNT	38	T(1541)	R	-	-	202
C3	1	CNT(13)	R	U	-	202
C8	1	CNT(23)	R	U	-	202
EL	15	T(1300)	R	U	-	205
IL	1	ARG	I	U	C	-
IM	1	ARG	I	U	C	-
T	2060	1	R	-	-	3
XN	1	-	R	-	C	-

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TABLE 146. VARIABLE REFERENCES, SUBROUTINE ACPRTA

Variable Name	Size	Common Ref Loc	Variable Description			Table Ref
			Type	Used	Calc	
ACCVID	1	D(431)	R	U	-	8
ACID	1	D(430)	R	U	-	8
CD	2000	4121	R	U	-	3,217
CT	2048	7121	R	-	-	3
D	2060	2061	R	U	-	3,8
DC	100	D(1401)	R	U	-	10
DDFS	220	CD(661)	R	U	-	221
DDIS	220	CD(441)	R	U	-	220
DDLC	220	CD(221)	R	U	-	219
DDRS	220	CD(881)	R	U	-	221
DDSTR	330	CT(1321)	R	U	-	222
DDUC	220	CD(1)	R	U	-	219
DGW	3	D(102)	R	U	-	8
DINID	1	D(271)	R	U	-	8
DNNZ	1	T(21)	R	U	-	34
DPNZ	1	T(20)	R	U	-	34
ECFL	11	CD(298)	R	U	-	217
ECFØ	11	CD(210)	R	U	-	217
ECMD	11	CD(78)	R	U	-	217
EICD	11	CD(56)	R	U	-	217
EICFL	11	CD(276)	R	U	-	217
EICFØ	11	CD(188)	R	U	-	217
EISFL	11	CD(232)	R	U	-	217
EISFØ	11	CD(144)	R	U	-	217
EISTD	11	CD(12)	R	U	C	217
EIVFD	11	CD(100)	R	U	-	217
EIVFS	11	CD(364)	R	U	C	217

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TABLE 146. VARIABLE REFERENCES, SUBROUTINE ACPRTA (CONT)

Variable Name	Size	Common Ref Loc	Variable Description			Table Ref
			Type	Used	Calc	
ENH	6	D(1164)	R	U	-	8
ESFL	11	CD(254)	R	U	-	217
ESFØ	11	CD(166)	R	U	-	217
ESTD	11	CD(34)	R	U	C	217
EVFD	11	CD(122)	R	U	-	217
EVFS	11	CD(386)	R	U	C	217
GCFL	11	CD(287)	R	U	-	217
GCFØ	11	CD(199)	R	U	-	217
GOMD	11	CD(67)	R	U	-	217
GJCD	11	CD(45)	R	U	-	217
GJCFL	11	CD(265)	R	U	-	217
GJCFØ	11	CD(177)	R	U	-	217
GJRQD	11	T(668)	R	U	-	190
GJSFL	11	CD(221)	R	U	-	217
GJSFØ	11	CD(133)	R	U	-	217
GJSTD	11	CD(1)	R	U	C	217
GJVFD	11	CD(89)	R	U	-	217
GJVFS	11	CD(353)	R	U	C	217
GSFL	11	CD(243)	R	U	-	217
GSFØ	11	CD(155)	R	U	-	217
GSTD	11	CD(23)	R	U	C	217
GVFD	11	CD(111)	R	U	-	217
GVFS	11	CD(375)	R	U	C	217
I	1	-	I	U	C	-
IGW	1	ND(61)	I	U	-	9
IND	1	-	I	U	C	-
K	1	-	I	U	C	-

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TABLE 146. VARIABLE REFERENCES, SUBROUTINE ACPRTA (CONT)

Variable Name	Size	Common Ref Loc	Variable Description			Table Ref
			Type	Used	Calc	
L	1	-	I	U	C	-
N	1	-	I	U	C	-
NCASE	1	ND(60)	I	U	-	9
ND	100	6121	I	U	-	3,9
NØDW	1	ND(56)	I	U	-	9
NPAGE	1	ND(85)	I	U	C	9
R	16	XMISC(85)	R	U	-	6
T	2060	1	R	U	-	3,34,190
TBWPI	11	T(745)	R	U	-	190
TC	340	T(960)	R	U	-	-
TDWM	11	CD(1979)	R	U	-	-
TDWT	11	CD(1990)	R	U	-	-
TDWV	11	CD(1968)	R	U	-	-
TEIGJ	4	TW(783)	R	U	-	199
TR	40	T(1300)	R	U	C	-
TSEC	300	CD(1501)	R	U	-	226
TSS	100	T(1961)	R	U	C	-
TW	900	6220	R	-	-	3
TWT	400	CD(1101)	R	U	-	230
ULTNM	11	TSEC(122)	R	U	-	226
ULTNT	11	TSEC(155)	R	U	-	226
ULTNV	11	TSEC(111)	R	U	-	226
ULTPM	11	TSEC(1)	R	U	-	226
ULTPT	11	TSEC(144)	R	U	-	226
ULTPV	11	TSEC(12)	R	U	-	226

TABLE 146. VARIABLE REFERENCES, SUBROUTINE ACPRTA (CONCL)

Variable Name	Size	Common Ref Loc	Variable Description			Table Ref
			Type	Used	Calc	
VFID	1	D(251)	R	U	-	8
WHVID	1	T(57)	R	U	-	34
XMISC	100	/MISC/	R	-	-	6
YBLD	11	T(690)	R	U	-	190
YBLI	11	TSEC(188)	R	U	-	226
YBUD	11	T(679)	R	U	-	190
YBUI	11	TSEC(133)	R	U	-	226

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TABLE 147. VARIABLE REFERENCES, SUBRØUTINE WØDATA

Variable Name	Size	Common Ref Loc	Variable Description			Table Ref
			Type	Used	Calc	
BS1Ø2	1	T(15)	R	U	-	34
CCDLI	150	CD(501)	R	U	-	186
CCI	300	CD(1651)	R	U	C	-
CCLDH	1	T(91)	R	U	-	34
CCLØ	9	T(131)	R	U	-	34
CCW	50	CD(1)	R	U	-	170
CD	2000	4121	R	U	-	3
CFL1I	150	CD(951)	R	U	-	187
CFL2I	150	CD(1101)	R	U	-	187
CIØY	150	CD(1401)	R	U	C	175
CLEI	150	CD(651)	R	U	C	174
CMII	150	CD(1251)	R	U	-	185
CØSØ	6	T(146)	R	U	-	34
CSWD	1	D(480)	R	U	-	8
CTBI	150	CD(351)	R	U	C	194
CTBW	150	CD(351)	R	U	-	193
CTEI	150	CD(801)	R	U	C	174
D	2060	2061	R	U	-	3,8
DC	100	D(1401)	R	U	-	10
DELWG	1	T(187)	R	U	-	34
DINID	1	D(271)	R	U	-	8
DKDIN	15	D(1970)	R	U	-	8
DLTBX	1	T(188)	R	U	-	34
DUMMY	50	-	R	U	C	-
DWGLE	1	T(193)	R	U	-	34
DWGTE	1	T(194)	R	U	-	34
I	1	ND(29)	I	U	C	9

TABLE 147. VARIABLE REFERENCES, SUBRØUTINE WØDATA (CONT)

Variable Name	Size	Common Ref Loc	Variable Description			Table Ref
			Type	Used	Calc	
IF8	1	ND(97)	I	U	C	9
IGW	1	ND(61)	I	U	C	9
II	1	-	I	U	C	-
IP	80	/IPRINT/	I	U	C	7
KK	1	-	I	U	C	-
N	1	-	I	U	C	-
NCASE	1	ND(60)	I	U	-	9
ND	100	6121	I	U	-	3,9
SINØ	6	T(140)	R	U	-	34
T	2060	1	R	U	-	3,34,190
TANØ	9	T(122)	R	U	-	34
TBCWT	11	CTBW(12)	R	U	-	193
TBWPI	11	CTBW(1)	R	U	-	193
TCS	250	CD(1401)	R	U	C	-
TG	300	T(1001)	R	U	-	166
TGA	135	T(1851)	R	U	-	167
TMWPI	11	CTBW(78)	R	U	-	193
TØGW	3	D(80)	R	U	-	8
TPNLW	10	CTBW(58)	R	U	-	193
TST	50	T(1001)	R	U	C	-
TTIDH	1	D(204)	R	U	-	8
TW	900	T(6221)	R	U	C	3
TWG	400	T(1301)	R	U	-	169
TWT	400	CD(1101)	R	U	-	230
VFWPI	11	CTBW(89)	R	U	-	193
VTID	1	D(289)	R	U	-	8
WCG	126	TW(701)	R	U	C	195

TABLE 147. VARIABLE REFERENCES, SUBRØUTINE WØDATA (CONCL)

Variable Name	Size	Common Ref Loc	Variable Description			Table Ref
			Type	Used	Calc	
WHVID	1	T(57)	R	U	-	34
WPNLS	10	CTEW(48)	R	U	-	193
WTIP	4	T(641)	R	U	-	190
WTLT	8	TW(879)	R	-	C	-
XCSEC	1	T(62)	R	U	-	34
XPVT	1	T(40)	R	U	-	34
XSPVT	1	T(51)	R	U	-	34
YC	150	T(201)	R	-	C	168
YPVT	1	T(39)	R	U	-	34
YSPVT	1	T(41)	R	U	-	34
YTC	60	T(351)	R	-	C	39

TABLE 148. VARIABLE REFERENCES, SUBROUTINE PRTD

Variable Name	Size	Common Ref Loc	Variable Description			Table Ref
			Type	Used	Calc	
CCW		CD(1)	R	U	-	170
CD	2000	4121	R	U	-	3
CNSID	1	D(461)	R	U	-	8
D	2060	2061	R	U	-	3,8
DC	100	D(1401)	R	U	-	10
DEL	30	TW(827)	R	U	-	226
DELC	5	T(187)	R	U	-	34
DELCS	30	D(481)	R	U	-	8
DELLE	1	T(189)	R	U	-	34
DELPV	7	D(530)	R	U	-	8
DELTE	1	T(190)	R	U	-	34
DELWG	1	T(187)	R	U	-	34
DGW	3	D(102)	R	U	-	8
DLTBX	1	T(188)	R	U	-	34
DNNZ	1	T(21)	R	U	-	34
DPNZ	1	T(20)	R	U	-	34
DWGLE	1	T(193)	R	U	-	34
DWGTB	1	T(192)	R	U	-	34
DWGTE	1	T(194)	R	U	-	34
DYPVT	1	D(200)	R	U	-	8
FDAT	60	/FDATT/	R	U	C	5
GNNZ	1	T(21)	R	U	-	34
GPNZ	1	T(18)	R	U	-	34
I	1	ND(27)	I	U	C	9
IP	80	/IPRINT/	I	U	-	7
J	1	ND(28)	I	U	C	9
K	1	ND(29)	I	U	C	9

TABLE 148. VARIABLE REFERENCES, SUBRØUTINE PRTD (CONCL)

Variable Name	Size	Common Ref Loc	Variable Description			Table Ref
			Type	Used	Calc	
L	1	ND(30)	I	U	C	9
MATLI	1	ND(21)	I	U	-	9
N	1	ND(31)	I	U	C	9
NCASE	1	ND(60)	I	U	-	9
ND	100	6121	I	U	-	3,9
R	16	XMISC(85)	R	U	-	6
SCSEC	1	T(95)	R	U	-	34
SEXP	1	T(2)	R	U	-	34
SPBØX	1	T(24)	R	U	-	34
SPLE	1	T(25)	R	U	-	34
SPTE	1	T(26)	R	U	-	34
STIP	1	T(17)	R	U	-	34
STØT	1	T(1)	R	U	-	34
T	2060	1	R	-	-	3,34
TØGW	4	D(80)	R	U	-	8
TS	520	TW(1)	R	U	C	-
TW	900	6221	R	-	-	3
VTID	1	D(289)	R	U	-	8
WCG	126	TW(701)	R	U	-	195
WFL	3	T(97)	R	U	-	34
WTLT	8	TW(879)	R	U	-	-
XMISC	100	/MISC/	R	-	-	6

TABLE 149. VARIABLE REFERENCES, SUBRØUTINE TBFWI

Variable Name	Size	Common Ref Loc	Variable Description			Table Ref
			Type	Used	Calc	
CCI	300	CD(1651)	R	U	-	-
CD	2000	4121	R	-	-	3
CØSØ	6	T(146)	R	U	-	34
D	2060	2061	R	U	-	3,8
DC	100	D(1401)	R	U	-	10
I	1	ND(26)	I	U	C	9
IP	80	/IPRINT/	I	U	-	7
K	1	ND(29)	I	U	C	9
KD	1	ND(32)	I	U	C	9
N	1	ND(27)	I	U	C	9
NA	1	ND(31)	I	U	C	9
ND	100	6121	I	U	-	3,9
NS	1	ND(30)	I	Uq	C	9
SINØ	6	T(140)	R	U	-	34
T	6220	1	R	U	-	3,34
TCS	250	CD(1401)	R	U	C	-
TG	300	T(1001)	R	U	-	166
TGA	135	T(1851)	R	U	-	167
TGR	100	T(1751)	R	U	-	-

TABLE 150. VARIABLE REFERENCES, SUBRØUTINE WFLDD

Variable Name	Size	Common Ref Loc	Variable Description			Table Ref
			Type	Used	Calc	
BC	170	CD(1401)	R	U	C	-
B1SØ2	1	T(15)	R	U	-	34
CCI	300	CD(1651)	R	U	-	-
CCLØ	9	T(131)	R	U	-	34
CD	2000	4121	R	U	-	3
CFL1I	150	CD(951)	R	U	-	187
CFL2I	150	CD(1101)	R	U	-	187
CLEI	150	CD(651)	R	U	-	174
CMII	150	CD(1251)	R	U	-	185
CTBI	150	CD(351)	R	U	-	194
CTEI	150	CD(801)	R	U	-	174
D	2060	2061	R	U	-	3,8
DC	100	D(1401)	R	U	-	10
DEFL	1	D(292)	R	U	-	8
DFXF	2	D(272)	R	U	-	8
DGFL	1	D(293)	R	U	-	8
DINTP	1	D(280)	R	U	-	8
I	1	ND(29)	I	U	C	9
IP	80	/IPRINT/	I	U	-	7
K	1	ND(31)	I	U	C	9
L	1	ND(28)	I	U	C	9
N	1	ND(30)	I	U	C	9
NCASE	1	ND(60)	I	U	-	9
ND	100	6121	I	U	-	3,9
T	6220	1	R	-	-	3,34
TANØ	9	T(122)	R	U	-	34
TCS	250	CD(1401)	R	U	C	-

TABLE 150. VARIABLE REFERENCES, SUBROUTINE WFLDD (CONCL)

Variable Name	Size	Common Ref Loc	Variable Description			Table Ref
			Type	Used	Calc	
TG	300	T(1001)	R	U	-	166
TGA	135	T(1851)	R	U	-	167
TGR	100	T(1751)	R	U	C	-
TT	24	T(411)	R	U	C	-
TWG	400	T(1301)	R	U	-	169
VH1	1	D(290)	R	U	-	8
VH2	1	D(291)	R	U	-	8
YC	150	T(201)	R	U	-	168

TABLE 151. VARIABLE REFERENCES, SUBRØUTINE WVFDD

Variable Name	Size	Common Ref Loc	Variable Description			Table Ref
			Type	Used	Calc	
ACID	1	D(430)	R	U	-	8
BSØ2	1	T(81)	R	U	-	34
BS1Ø2	1	T(15)	R	U	-	34
CCDLI	150	CD(501)	R	U	C	186
CCI	300	CD(1651)	R	U	C	-
CCLØ	9	T(131)	R	U	-	34
CD	2000	4121	R	U	C	3
CFL1I	150	CD(951)	R	U	-	187
CFL21	150	CD(1101)	R	U	-	187
CGFS	1	D(296)	R	U	-	8
CLEI	150	CD(651)	R	U	-	174
CMII	150	CD(1251)	R	U	-	185
CØSØ	6	T(146)	R	U	-	34
CTBI	150	CD(351)	R	U	-	194
CTEI	150	CD(801)	R	U	-	174
D	2060	2061	R	U	-	3,8
DC	100	D(1401)	R	U	-	10
DCDL	100	D(1855)	R	U	-	8
DGWIX	1	D(298)	R	U	-	8
DGWIY	1	D(297)	R	U	-	8
DGWVF	1	D(295)	R	U	-	8
DVFC	2	D(278)	R	U	-	8
DVFF	2	D(276)	R	U	-	8
I	1	ND(29)	I	U	C	9
IND	1	-	I	U	C	-
IP	80	/IPRINT/	I	U	-	7
I1	1	-	I	U	C	-

TABLE 151. VARIABLE REFERENCES, SUBRØUTINE WVFDD (CONT)

Variable Name	Size	Common Ref Loc	Variable Description			Table Ref
			Type	Used	Calc	
K	1	ND(31)	I	U	C	9
K2	1	-	I	U	C	-
L	1	ND(28)	I	U	C	9
L1	1	-	I	U	C	-
L2	1	-	I	U	C	-
M	1	ND(27)	I	U	C	9
N	1	ND(30)	I	U	C	9
ND	100	6121	I	U	-	3,9
N1	1	-	I	U	C	-
SINØ	6	T(140)	R	U	-	34
T	7120	1	R	U	-	3,34
TANØ	9	T(122)	R	U	-	34
TCS	250	CD(1401)	R	U	C	-
TG	300	T(1001)	R	U	-	166
TGR	100	T(1751)	R	U	C	-
TST	50	T(1701)	R	U	C	-
TT	24	T(411)	R	U	C	-
TW	900	6221	R	U	C	3
TWG	400	T(1301)	R	U	-	169
VFALT	1	D(305)	R	U	-	8
VFDE	1	D(307)	R	U	-	8
VFDG	1	D(308)	R	U	-	8
VFKSP	1	D(309)	R	U	-	8
VFMN	1	D(304)	R	U	-	8
VFRHØ	1	D(306)	R	U	-	8
WWCIX	1	D(303)	R	U	-	8
WWCIY	1	D(302)	R	U	-	8

TABLE 151. VARIABLE REFERENCES, SUBROUTINE WVFDD (CONCL)

Variable Name	Size	Common Ref Loc	Variable Description			Table Ref
			Type	Used	Calc	
WWCX	1	D(301)	R	U	-	8
WWCY	1	D(300)	R	U	-	8
WWPC	1	D(299)	R	U	-	8
YC	150	T(201)	R	U	-	168

TABLE 152. VARIABLE REFERENCES, SUBRØUTINE TPINT

Variable Name	Size	Common Ref Loc	Variable Description			Table Ref
			Type	Used	Calc	
I	1	ND(32)	I	U	C	9
ND	100	6121	I	-	-	3,9
T	6220	1	R	-	-	3
TT	24	T(411)	R	U	C	-
X1	3	ARG	R	u	C	-
YØ	1	ARG	R	U	C	-
Y1	3	ARG	R	U	C	-

TABLE 153. VARIABLE REFERENCES, SUBRØUTINE PINTØ

Variable Name	Size	Common Ref Loc	Variable Description			Table Ref
			Type	Used	Calc	
CCDLI	150	CD(501)	R	U	-	186
CCI	300	CD(1651)	R	U	-	-
CD	2000	4121	R	-	-	3
D	2060	2061	R	-	-	3,8
DINTP	1	D(280)	R	U	-	8
I	1	ND(29)	I	U	C	9
J	1	-	I	U	C	-
J1	1	-	I	U	C	-
J2	1	-	I	U	C	-
K	1	ND(31)	I	U	C	9
L	1	-	I	U	C	-
M	1	-	I	U	C	-
M1	1	-	I	U	C	-
N	1	ND(30)	I	U	C	9
NC	1	-	I	U	C	-
NCASE	1	ND(60)	I	U	-	9
ND	100	6121	I	U	C	3,8
T	6220	1	R	-	-	3
TCS	250	CD(1401)	R	U	-	-
TGR	100	T(1751)	R	U	-	-

TABLE 154. VARIABLE REFERENCES, SUBRØUTINE CTØT

Variable Name	Size	Common Ref Loc	Variable Description			Table Ref
			Type	Used	Calc	
CCLØ	9	T(131)	R	U	-	34
CØSØ	6	T(146)	R	U	-	34
CØTEA	1	T(152)	R	U	-	34
D	2060	2061	R	-	-	3,8
I	1	-	I	U	C	-
IP	80	/IPRINT/	I	U	-	7
I1	1	-	I	U	C	-
K2	1	-	I	U	C	-
ND	100	6121	I	U	-	3,9
N1	1	-	I	U	C	-
T	6220	1	R	-	-	3,34
TANØ	9	T(122)	R	U	-	34
TT	24	T(411)	R	U	-	-
YC	150	T(201)	R	U	C	168
YTC	60	T(351)	R	U	-	39